

Formation of the Soils

Soil is unconsolidated mineral or organic material that supports plants (12). An individual soil is three-dimensional. The shape and size of individual bodies of soil commonly are related to the shape and characteristics of the landforms.

Soil is the natural result of the interaction of five soil-forming factors—parent material, living organisms, climate, topography, and time. The effect of any one factor is dependent on the other four factors. Changes in climate, vegetation, and land use all affect soil formation.

Parent Material

Few soils, if any, are static. Soils are a product of the addition and removal of material as influenced by the other soil-forming factors.

Dust blown onto the surface or deposited by rainfall adds mineral material that affects soil formation. Some of these deposits contain calcium carbonate that is added to the soils. Some soils also receive annual or more frequent deposits of sediment carried by overland flow.

Soil blowing and water erosion can remove soil material as fast or faster than it is deposited. Soil blowing removes only the smaller sized particles from the surface, leaving a gravelly desert pavement that is resistant to further wind action.

Water erosion can occur in the form of sheet, rill, or gully erosion. The material can be transported only a few inches or many miles. It may be sorted or mixed with other material and redeposited. It may be deposited in large enough quantities to be considered parent material or such small quantities that it only offsets a slight loss of material on a relatively stable soil.

The soils in the survey area formed in material weathered from rocks that range in age from late Precambrian to Quaternary. The material includes intrusive and volcanic igneous rock, sedimentary rock, and metamorphic rock. The numerous kinds of rock and their varying ages have resulted in the formation of many different kinds of soil.

Soils that formed in material weathered from rocks of the Quaternary include those of the Aparejo, Navajo, and Venadito series, which are on flood plains and in valleys that receive sediment during periods of flooding, and those of the Pojoaque and Rana series, which are on mesa breaks.

Soils that formed in material weathered from rocks of the Tertiary, including basalt flows and rhyolite, are those of the Berto, Flaco, Kiki, and Viuda series. Scattered areas of these soils are throughout the survey area.

Soils that formed in material weathered from rocks of the Cretaceous, Jurassic, and Triassic are those of the Atarque, Bond, Galestina, Hagerman, Montecito, Penistaja, Pinitos, and Teco series. These rocks are Dakota Sandstone, Gallup Sandstone, Mancos Shale, the Morrison Formation, and Zuni Sandstone (4).

Soils that formed in material weathered from rocks of the Precambrian include those of the Mirabal series. These rocks are mainly granitic and are in the Zuni Mountains.

The method of deposition and the type of rock influence the texture of the parent material. The material deposited by slowly moving water passing through an area of shale may be fine textured clay, but that deposited by rapidly moving streams near areas of granite may be very gravelly and cobbly. Wind- and water-deposited material derived from sandstone commonly is sandy. The texture of the parent material considerably affects the permeability, available water capacity, rooting depth, and chemical characteristics of a soil.

Living Organisms

Plant and animal life on and in the soil affects soil formation. Organic material, such as leaves, branches, logs, stems, and decaying roots, is added to the soil, and a multitude of micro-organisms in the soil act on the material. Insects and burrowing animals mix the soil. The larger animals trample the soil. The trampling breaks up the surface crust and allows more moisture to enter the soil. Animals also add organic matter and

other nutrients. Human beings apply fertilizer, soil amendments, and other material to the soil and extract products from it. All of these activities alter the nature of the soil.

The influence of human activities on the formation of the soils in the survey area generally has been minimal. It has been significant, however, in areas of irrigated cropland, in urban areas, and in areas that have been mined for uranium. These activities have depleted some plant nutrients and added others, such as waste products from livestock enterprises, commercial fertilizer, garbage, and green manure crops. In some areas erosion has occurred as a result of overgrazing.

The soils in the survey area support several types of vegetation. Each type has a specific influence on soil formation. In the southeastern part of the area, the vegetation is mainly desert shrubs and warm-season grasses. Precipitation is low in this area, and plant growth is not so vigorous as it is in the cooler, north-central part of the survey area. Grieta, Kiki, Suwanee, and Navajo are examples of soils that support this type of vegetation. These soils have a low content of organic matter.

In the north-central part of the survey area, the vegetation is mainly pinyon, juniper, ponderosa pine, cool-season grasses, and shrubs. Precipitation is higher in this area than in other parts of the survey area, and the rate of evaporation is lower. The plants grow more vigorously and produce more litter. Manzano, McGaffey, Millpaw, Moreno, and Saladon are examples of soils that support these plants. These soils have a higher content of organic matter than the soils in other parts of the survey area.

Topography

Topography affects soil formation through its influence on drainage, erosion, canopy cover, and soil temperature. Generally, the shallower soils that have less distinct horizons are in steep areas on ridges. Runoff is rapid in these areas. These soils exhibit little profile development because soil material is eroded away faster than the soils can form. The deeper soils that have distinct horizons are in gently sloping areas. Runoff is slow in these areas. These soils lose only small amounts of soil material through water erosion. Alluvial material is deposited on the nearly level soils on flood plains so frequently that distinct horizons cannot form.

Relief and surface drainage are closely related. Relief varies in the survey area. The main drainageways are the Rio Pescado, the Rio Puerco, and the Rio San Jose and numerous arroyos and

washes. The Rio Pescado drains the west-central part of the survey area, the Rio San Jose drains the area north of Interstate 40, and the Rio Puerco drains the northeastern part of the survey area.

Soils on south and west aspects are warmer than soils on north and east aspects and have a higher evaporation rate. As a result, they support less vegetation, are more susceptible to erosion, and exhibit less profile development.

Climate

Climate is a major factor of soil formation in this survey area. Temperature, precipitation, humidity, and wind affect vegetation, parent material, and soil drainage. Generally, precipitation and humidity increase and temperature decreases as elevation increases.

The climate in the survey area is highly varied because of the wide range in elevation and the uneven topography. Elevation ranges from 5,250 feet near the Rio Puerco to 10,300 feet north of Water Canyon, near Mount Taylor. The average annual temperature ranges from about 38 to 55 degrees F, and the average annual precipitation ranges from 7 to 25 inches. About 50 percent of the precipitation falls during brief, generally heavy thunderstorms in the period July through September. Much of the precipitation runs off the more sloping soils because of the intensity of the storms. All of the soils in the survey area can receive and absorb the moisture from gentle rains, but heavy rainfall is concentrated in the nearly level areas. The soils in these areas are leached of soluble salts to a greater depth than the soils in other areas. Also, they support more lush vegetation.

Time

Soils form over a long period of time. The length of time that the other soil-forming factors have been acting on the parent material generally is evidenced by the soil profile. As the length of time increases, the development of the profile becomes more apparent. Calcium carbonate and very fine clay may be leached downward and may accumulate in the underlying layers.

In this survey area, most of the irrigated soils are on flood plains and alluvial fans. These soils generally are deep, are slowly permeable, and have ample plant nutrients. They have few apparent horizons other than those having accumulations of organic matter.

Sparank, Venadito, Aparejo, and San Mateo are examples of soils that exhibit little or no profile development. The parent material has been altered very little. Manzano, McGaffey, and Winona soils show

evidence of some profile development. Soluble salts have been leached from the upper part of these soils, and distinct horizons are recognizable. Flugle, Goesling, Montecito, and Teco soils are highly developed. The

soluble salts have been leached from the upper part of the profile, and clay has formed and accumulated in the lower part.

References

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Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. The fanlike deposit of a stream where it issues from a gorge upon a plain or of a tributary stream near or at its junction with its main stream.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Arroyo. The flat-floored channel of an ephemeral stream, commonly with very steep to vertical banks cut in alluvium.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3.5
Low	3.5 to 5.0
Moderate	5.0 to 7.5
High	7.5 to 10.0
Very high.....	more than 10.0

Back slope. The geomorphic component that forms the steepest inclined surface and principal element of many hillsides. Back slopes in profile are commonly steep, are linear, and may or may not include cliff segments.

Badland. Steep or very steep, commonly nonstony, barren land dissected by many intermittent drainage channels. Badland is most common in semiarid and arid regions where streams are entrenched in soft geologic material. Local relief generally ranges from 25 to 500 feet. Runoff potential is very high, and geologic erosion is active.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, K), expressed as a percentage of the total cation-exchange capacity.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Blowout. A shallow depression from which all or most of the soil material has been removed by the wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.

Bottom land. The normal flood plain of a stream, subject to flooding.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. The steep and very steep broken land at the border of an upland summit that is dissected by ravines.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable

for reseeding or to reduce or eliminate competition from woody vegetation and thus to allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Butte. An isolated small mountain or hill with steep or precipitous sides and a top variously flat, rounded, or pointed that may be a residual mass isolated by erosion or an exposed volcanic neck.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Caliche. A more or less cemented deposit of calcium carbonate in soils of warm-temperate, subhumid to arid areas. Caliche occurs as soft, thin layers in the soil or as hard, thick beds just beneath the solum, or it is exposed at the surface by erosion.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Canyon. A long, deep, narrow, very steep sided valley with high, precipitous walls in an area of high local relief.

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil. A soil that is, by volume, more than 15 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Clay. As a soil separate, the mineral soil particles less

than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Climax plant community. The plant community on a given site that will be established if present environmental conditions continue to prevail and the site is properly managed.

Coarse fragments. Mineral or rock particles larger than 2 millimeters in diameter.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material is 35 to 60 percent of these rock fragments, and extremely cobbly soil material is more than 60 percent.

Colluvium. Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Compressible (in tables). Excessive decrease in volume of soft soil under load.

Concretions. Grains, pellets, or nodules of various sizes, shapes, and colors consisting of concentrated compounds or cemented soil grains. The composition of most concretions is unlike that of the surrounding soil. Calcium carbonate and iron oxide are common compounds in concretions.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use

of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are:

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—Readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—Adheres to other material and tends to stretch somewhat and pull apart rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard; little affected by moistening.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosive. High risk of corrosion to uncoated steel or deterioration of concrete.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Cuesta. An asymmetric, homoclinal ridge capped by resistant rock layers of slight or moderate dip.

Culmination of the mean annual increment (CMAI).

The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment

continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Depth, soil. The thickness of weathered soil material overlying bedrock. The depth classes recognized in this survey area are:

Very shallow.....	less than 10 inches
Shallow.....	10 to 20 inches
Moderately deep.....	20 to 40 inches
Deep.....	more than 40 inches

Depth to rock (in tables). Bedrock is too near the surface for the specified use.

Desert pavement. A layer of gravel or coarser fragments on a desert surface that was emplaced by upward movement of fragments from underlying sediment or remains after finer particles have been removed by running water or the wind.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming with the dip of underlying bedded rock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Drainage class (natural). Refers to the frequency and duration of periods of saturation or partial saturation during soil formation, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized:

Excessively drained.—These soils have very high and high hydraulic conductivity and a low water-holding capacity. They are not suited to crop production unless irrigated.

Somewhat excessively drained.—These soils have high hydraulic conductivity and a low water-holding capacity. Without irrigation, only a narrow range of crops can be grown and yields are low.

Well drained.—These soils have an intermediate water-holding capacity. They retain optimum amounts of moisture, but they are not wet close enough to the surface or long enough during the growing season to adversely affect yields.

Moderately well drained.—These soils are wet

close enough to the surface or long enough that planting or harvesting operations or yields of some field crops are adversely affected unless a drainage system is installed. Moderately well drained soils commonly have a layer with low hydraulic conductivity, a wet layer relatively high in the profile, additions of water by seepage, or some combination of these.

Somewhat poorly drained.—These soils are wet close enough to the surface or long enough that planting or harvesting operations or crop growth is markedly restricted unless a drainage system is installed. Somewhat poorly drained soils commonly have a layer with low hydraulic conductivity, a wet layer high in the profile, additions of water through seepage, or a combination of these.

Poorly drained.—These soils commonly are so wet at or near the surface during a considerable part of the year that field crops cannot be grown under natural conditions. Poorly drained conditions are caused by a saturated zone, a layer with low hydraulic conductivity, seepage, or a combination of these.

Very poorly drained.—These soils are wet to the surface most of the time. The wetness prevents the growth of important crops (except for rice) unless a drainage system is installed.

Drainage, surface. Runoff, or surface flow of water, from an area.

Draw. A small stream valley, generally more open and with broader bottom land than a ravine or gulch.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Eolian soil material. Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as

flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

Excess fines (in tables). Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.

Excess lime (in tables). Excess carbonates in the soil that restrict the growth of some plants.

Excess salts (in tables). Excess water-soluble salts in the soil that restrict the growth of most plants.

Excess sodium (in tables). Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.

Extrusive rock. Igneous rock derived from deep-seated molten matter (magma) emplaced on the earth's surface.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

Fan terrace. A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.

Fast intake (in tables). The rapid movement of water into the soil.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.

Fine textured soil. Sandy clay, silty clay, or clay.

Flaggy soil material. Material that is, by volume, 15 to

35 percent flagstones. Very flaggy soil material is 35 to 60 percent flagstones, and extremely flaggy soil material is more than 60 percent flagstones.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Foot slope. The inclined surface at the base of a hill.

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Fragile (in tables). A soil that is easily damaged by use or disturbance.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that is 15 to 50 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water (geology). Water filling all the unblocked pores of underlying material below the water table.

Gullied land. Areas where erosion has resulted in a network of V- or U-shaped channels. Gullied land resembles small areas of badland.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Gypsum land. Exposures of nearly pure, soft gypsum. The surface generally is very unstable and erodes easily. Trafficability is very poor.

Hard bedrock. Bedrock that cannot be excavated

except by blasting or by the use of special equipment that is not commonly used in construction.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:
O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the

material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil.

The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff-producing characteristics. The chief consideration is the inherent capacity of soil bare of vegetation to permit infiltration. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff. Soils are assigned to four groups. In group A are soils having a high infiltration rate when thoroughly wet and having a low runoff potential. They are mainly deep, well drained, and sandy or gravelly. In group D, at the other extreme, are soils having a very slow infiltration rate and thus a high runoff potential. They have a claypan or clay layer at or near the surface, have a permanent high water table, or are shallow over nearly impervious bedrock or other material. A soil is assigned to two hydrologic groups if part of the acreage is artificially drained and part is undrained.

Igneous rock. Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long,

continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Light textured soil. Sand or loamy sand.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by the wind.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until

the next crop in the rotation is established. These crops return little organic matter to the soil.

Low strength. The soil is not strong enough to support loads.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Mesa. A broad, nearly flat topped and commonly isolated upland mass characterized by summit widths that are more than the heights of bounding erosional scarps.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. An area that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Mountain. A natural elevation of the land surface, rising more than 1,000 feet above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides and considerable bare-rock surface. A mountain can occur as a single, isolated mass or in a group forming a chain or range.

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of the three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value between 6.6 and 7.3. (See Reaction, soil.)

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The downward movement of water through the soil.

Percs slowly (in tables). The slow movement of water through the soil, adversely affecting the specified use.

Permeability. The quality of the soil that enables water to move downward through the profile. Permeability is measured as the number of inches per hour that water moves downward through the saturated soil. Terms describing permeability are:

Very slow	less than 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management. For example, slope, stoniness, and thickness.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of

moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plateau. An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.

Playa. The generally dry and nearly level lake plain that occupies the lowest parts of closed depressional areas, such as those on intermontane basin floors. Temporary flooding occurs primarily in response to precipitation and runoff.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid permeability or an impermeable layer near the surface, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Poor outlets (in tables). Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Range condition. The present composition of the plant

community on a range site in relation to the potential natural plant community for that site. Range condition is expressed as excellent, good, fair, or poor on the basis of how much the present plant community has departed from the potential.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Range site. An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Extremely acid	below 4.5
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Medium acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Mildly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Red beds. Sedimentary strata mainly red in color and composed largely of sandstone and shale.

Regolith. The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.

Relief. The elevations or inequalities of a land surface, considered collectively.

Ridge. A long and narrow, generally sharp-crested land surface that has steep sides and forms on uplands between valleys. Ridges are in areas of hills and mountains.

Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

Riverwash. Unstabilized sandy, silty, clayey, or gravelly sediments in areas that are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Rooting depth (in tables). Shallow root zone. The soil is shallow over a layer that greatly restricts roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Saline soil. A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.

Salty water (in tables). Water that is too salty for consumption by livestock.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.

Seepage (in tables). The movement of water through the soil. Seepage adversely affects the specified use.

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer or of the underlying material. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock formed by the hardening of a clay deposit.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and runoff water.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling

can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Siltstone. Sedimentary rock made up of dominantly silt-sized particles.

Sinkhole. A depression in the landscape where limestone has been dissolved.

Site class. A grouping of site indexes into five to seven production capability levels. Each level can be represented by a site curve.

Site curve (100-year). A set of related curves on a graph that shows the average height of dominant and codominant trees for a range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant and codominant trees that are 100 years old or are 100 years old at breast height.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.

Slick spot. A small area of soil having a puddled, crusted, or smooth surface and an excess of exchangeable sodium. The soil generally is silty or clayey, is slippery when wet, and is low in productivity.

Slippage (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Sodic soil. A soil having so high a degree of alkalinity (pH 8.5 or higher), or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of Na^+ to $\text{Ca}^{++} + \text{Mg}^{++}$. The degrees of sodicity and their respective ratios are:

Slight	less than 13:1
Moderate	13-30:1
Strong	more than 30:1

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 6 to 15 inches (15 to 38 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive*

(the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from soil blowing and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Substratum. The part of the soil below the solum.

Subsurface layer. Technically, the E horizon. Generally refers to a leached horizon lighter in color and lower in content of organic matter than the overlying surface layer.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Tailwater. The water just downstream of a structure.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). Otherwise suitable soil material too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toe slope. The outermost inclined surface at the base of a hill; part of a foot slope.

Too arid (in tables). The soil is dry most of the time, and vegetation is difficult to establish.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Toxicity (in tables). Excessive amount of toxic substances, such as sodium or sulfur, that severely hinder establishment of vegetation or severely restrict plant growth.

Tuff. A compacted deposit that is 50 percent or more volcanic ash and dust.

Unstable fill (in tables). Risk of caving or sloughing on banks of fill material.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.

Variant, soil. A soil having properties sufficiently different from those of other known soils to justify a new series name, but occurring in such a limited geographic area that creation of a new series is not justified.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The action of uprooting and tipping over trees by the wind.

Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1953-90 at Grants, New Mexico, and 1949-90 at Laguna, New Mexico)

Month	Temperature		Precipitation	
	Average daily maximum	Average daily minimum	Average monthly total	Average number of days with 0.10 inch or more
	<u>° F</u>	<u>° F</u>	<u>In</u>	
GRANTS:				
January-----	44.6	13.7	0.47	1
February-----	50.0	18.0	.46	1
March-----	56.6	23.2	.46	1
April-----	66.4	29.6	.41	1
May-----	74.9	38.2	.48	1
June-----	85.3	47.2	.57	1
July-----	87.0	55.0	1.83	4
August-----	83.8	52.6	2.02	5
September-----	78.5	44.2	1.35	3
October-----	68.1	32.7	1.14	2
November-----	55.3	22.0	.51	1
December-----	46.3	14.4	.60	2
Year-----	66.4	32.6	10.30	23
LAGUNA:				
January-----	47.5	18.8	0.40	1
February-----	52.8	22.3	.44	1
March-----	59.6	27.3	.41	1
April-----	69.0	34.2	.39	1
May-----	77.8	42.9	.59	1
June-----	88.3	52.3	.44	1
July-----	90.5	58.8	1.66	4
August-----	87.4	57.1	1.80	5
September-----	81.5	48.9	1.17	3
October-----	71.2	37.6	1.15	2
November-----	58.2	26.6	.33	1
December-----	49.0	19.4	.49	1
Year-----	69.4	37.2	9.27	22

TABLE 2.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Cibola	Mckinley	Valencia	Total--	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
10	Lava flows-----	98,488	0	0	98,488	3.8
20	Penistaja fine sandy loam, 1 to 3 percent slopes-----	7,496	0	0	7,496	0.3
21	Clovis sandy clay loam, 1 to 3 percent slopes-----	817	0	0	817	*
25	Hickman-Catman complex, 1 to 6 percent slopes-----	53,388	65	0	53,453	2.0
30	Warm Springs loam, 0 to 2 percent slopes-----	2,163	0	0	2,163	0.1
40	Aparejo clay loam, 0 to 1 percent slopes-----	1,493	0	0	1,493	0.1
41	Aparejo clay loam, sandy substratum, 0 to 1 percent slopes-----	1,993	0	0	1,993	0.1
45	Aparejo clay, 0 to 1 percent slopes-----	1,250	0	0	1,250	*
50	Venadito clay loam, 0 to 1 percent slopes-----	4,385	0	0	4,385	0.2
51	Venadito sandy clay loam, 0 to 1 percent slopes-----	625	0	0	625	*
52	Venadito Variant clay loam, 0 to 1 percent slopes-----	780	0	0	780	*
55	Glenberg-San Mateo complex, 0 to 2 percent slopes-----	1,250	0	0	1,250	*
56	Mespuen loamy sand, 1 to 5 percent slopes-----	650	0	0	650	*
57	San Mateo clay loam, 1 to 3 percent slopes-----	3,189	0	0	3,189	0.1
58	San Mateo sandy clay loam, 1 to 3 percent slopes-----	1,885	0	0	1,885	0.1
60	Sparank clay loam, 1 to 3 percent slopes-----	4,038	0	0	4,038	0.1
61	Sparham clay loam, 0 to 2 percent slopes-----	906	0	0	906	*
62	Sparank sandy clay loam, saline, sodic, 1 to 3 percent slopes-----	4,531	0	0	4,531	0.2
66	Zia fine sandy loam, 3 to 5 percent slopes-----	355	0	0	355	*
70	Catman clay loam, 1 to 3 percent slopes-----	0	677	0	677	*
72	Catman Variant clay loam, 1 to 3 percent slopes-----	0	305	0	305	*
73	Catman sandy clay loam, 1 to 3 percent slopes-----	0	319	0	319	*
75	Hickman sandy clay loam, 1 to 3 percent slopes-----	0	233	0	233	*
100	Manzano loam, 1 to 5 percent slopes-----	1,987	0	0	1,987	0.1
120	Rock outcrop-Laporte complex, 30 to 60 percent slopes	12,132	0	0	12,132	0.4
130	Laporte-Rock outcrop complex, 3 to 20 percent slopes	36,375	0	0	36,375	1.3
200	Penistaja fine sandy loam, 2 to 10 percent slopes-----	71,754	0	1,202	72,956	2.8
205	Ildefonso very gravelly sandy loam, 3 to 15 percent slopes-----	850	0	0	850	*
210	Bond-Penistaja-Rock outcrop complex, 2 to 15 percent slopes-----	6,283	0	276	6,559	0.2
218	Viuda-Penistaja-Rock outcrop complex, 1 to 10 percent slopes-----	66,325	0	0	66,325	2.5
230	Dumps-Pits complex-----	6,609	0	0	6,609	0.2
251	Skyvillage-Rock outcrop-Bond complex, 3 to 40 percent slopes-----	34,603	0	1,205	35,808	1.3
257	Sparank-San Mateo complex, 0 to 5 percent slopes-----	78,559	0	2,389	80,948	3.0
259	Mikim loam, 1 to 5 percent slopes-----	17,155	0	367	17,522	0.6
262	Poley-Pojoaque very cobbly loams, 5 to 30 percent slopes-----	42,119	0	0	42,119	1.6
264	Tapia sandy loam, 1 to 5 percent slopes-----	2,793	0	0	2,793	0.1
270	Charo loam, 0 to 5 percent slopes-----	14,388	0	0	14,388	0.5
272	Cebolleta-Borrego-Rock outcrop complex, 1 to 15 percent slopes-----	11,601	0	0	11,601	0.4
276	Trag loam, 1 to 8 percent slopes-----	2,494	0	0	2,494	0.1
278	Microy-Rock outcrop complex, 5 to 30 percent slopes---	4,320	0	0	4,320	0.2
282	Cebolleta cobbly loam, 2 to 10 percent slopes, very stony-----	9,151	0	0	9,151	0.3
284	Cebolleta-Rock outcrop complex, 15 to 50 percent slopes-----	15,655	0	0	15,655	0.6
286	Cebolleta-Raton complex, 1 to 5 percent slopes-----	3,197	0	0	3,197	0.1
290	Paguate-Hackroy complex, 1 to 5 percent slopes-----	20,624	0	0	20,624	0.8
291	Paguate cobbly clay loam, 1 to 5 percent slopes-----	41,679	0	0	41,679	1.5
294	Parkay-Rock outcrop complex, 15 to 45 percent slopes	7,413	0	0	7,413	0.3
300	Saladon clay loam, 0 to 5 percent slopes-----	651	0	0	651	*
310	Mirabal very gravelly loam, 2 to 15 percent slopes----	5,925	0	0	5,925	0.2

See footnote at end of table.

TABLE 2.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Cibola	Mckinley	Valencia	Total--	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
315	Abersito, cobbly-Abersito-Rock outcrop association, 5 to 30 percent slopes-----	5,664	0	0	5,664	0.2
320	Cinnadale gravelly very fine sandy loam, 1 to 15 percent slopes-----	10,037	0	0	10,037	0.4
325	Moreno Variant loam, 2 to 10 percent slopes-----	542	0	0	542	*
330	Moreno loam, 1 to 10 percent slopes-----	1,895	0	0	1,895	0.1
340	Yankee silty clay loam, 0 to 3 percent slopes-----	551	0	0	551	*
350	Rock outcrop-Stout complex, 3 to 15 percent slopes----	6,634	0	0	6,634	0.2
406	Poley-Rock outcrop complex, 2 to 25 percent slopes----	48,908	0	7,469	56,377	2.1
407	Viuda-Rock outcrop complex, 1 to 10 percent slopes----	6,357	0	0	6,357	0.2
419	Navajo silty clay loam, 1 to 5 percent slopes-----	14,969	0	3,298	18,267	0.7
420	Navajo-Suwanee complex, 1 to 5 percent slopes-----	52,584	0	7,344	59,928	2.2
424	Mesapun-Palma association, 1 to 12 percent slopes-----	49,936	0	3,342	53,278	2.0
426	Sheppard-Shiprock association, 1 to 12 percent slopes----	20,993	0	1,542	22,535	0.8
432	Winona-Rock outcrop complex, 3 to 20 percent slopes----	14,550	0	7,545	22,095	0.8
434	Rizozo-Rock outcrop association, 3 to 55 percent slopes-----	10,160	0	1,257	11,417	0.4
446	Harvey-Oelop association, 0 to 5 percent slopes-----	9,825	0	14,973	24,798	0.9
476	Saido loam, 1 to 12 percent slopes-----	12,728	0	1,409	14,137	0.5
485	Rock outcrop-Mion complex, 15 to 65 percent slopes----	88,604	0	8,415	97,019	3.6
487	Mion-Badland complex, 20 to 65 percent slopes-----	7,401	0	7,719	15,120	0.6
500	Timhus-Bandera association, 20 to 50 percent slopes----	8,024	0	0	8,024	0.3
505	Flugle-Goesling loamy fine sands, 1 to 8 percent slopes-----	65,498	245	0	65,743	2.4
514	Raton-Rock outcrop complex, 1 to 10 percent slopes----	10,715	0	0	10,715	0.4
515	Rock outcrop-Vessilla-Mion complex, 3 to 55 percent slopes-----	242,043	8,762	0	250,805	9.3
518	Borrego-Charo-Rock outcrop complex, 1 to 10 percent slopes-----	7,768	0	0	7,768	0.3
520	Celacy-Atarque complex, 1 to 10 percent slopes-----	49,290	1,082	0	50,372	1.9
522	Bandera association, 15 to 45 percent slopes-----	4,287	0	0	4,287	0.2
523	Charo-Raton complex, 1 to 10 percent slopes-----	33,107	0	0	33,107	1.2
525	Catman-Silkie association, 1 to 10 percent slopes-----	66,091	6,043	0	72,134	2.7
535	Millpaw loam, 0 to 5 percent slopes-----	21,581	0	0	21,581	0.8
536	McGaffey loam, 1 to 5 percent slopes-----	1,883	0	0	1,883	0.1
537	Millpaw-Loarc complex, 0 to 10 percent slopes-----	11,870	0	0	11,870	0.4
540	Montecito fine sandy loam, 1 to 15 percent slopes----	19,278	0	0	19,278	0.7
550	Nogal-Galestina sandy loams, 1 to 10 percent slopes----	68,155	1,007	0	69,162	2.6
555	Pinitos-Ribera sandy loams, 1 to 10 percent slopes----	55,481	1,618	0	57,099	2.1
560	Flugle-Teco association, 1 to 8 percent slopes-----	107,826	3,404	0	111,230	4.2
561	Flugle-Quintana complex, 2 to 15 percent slopes-----	51,253	0	0	51,253	1.9
565	Quintana sandy loam, 5 to 15 percent slopes, gullied	10,783	0	0	10,783	0.4
570	Torreon-Rock outcrop-Cabazon complex, 15 to 45 percent slopes-----	20,537	0	0	20,537	0.8
575	Teco-Atarque association, 1 to 8 percent slopes-----	132,254	4,738	0	136,992	5.1
576	Teco sandy loam, 2 to 5 percent slopes-----	5,141	3,296	0	8,437	0.3
577	Cabazon-Montecito-Rock outcrop association, 1 to 10 percent slopes-----	135,037	211	0	135,248	5.0
579	Cabazon-Cantina complex, 1 to 7 percent slopes-----	73,127	298	0	73,425	2.7
581	Laporte-Vessilla complex, 3 to 15 percent slopes-----	4,476	0	0	4,476	0.2
582	Kenray fine sand, 3 to 15 percent slopes-----	6,772	0	0	6,772	0.3
585	Moncha silt loam, 2 to 10 percent slopes-----	4,227	0	0	4,227	0.2
586	Venadito-Teco association, 0 to 10 percent slopes-----	14,985	0	0	14,985	0.6
591	Valnor-Techado association, 2 to 25 percent slopes----	23,544	0	0	23,544	0.9
610	Grieta-Shiprock association, 1 to 10 percent slopes----	33,528	0	4,429	37,957	1.4
611	Grieta-Kiki sandy loams, 3 to 15 percent slopes-----	9,863	0	5,128	14,991	0.6
615	Trag-Techado-Rock outcrop complex, 3 to 55 percent slopes-----	9,415	0	0	9,415	0.3
618	Netoma sandy loam, 2 to 12 percent slopes-----	7,266	0	1,968	9,234	0.3
619	Venadito clay loam, 1 to 5 percent slopes-----	6,796	0	101	6,897	0.3

See footnote at end of table.

TABLE 2.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Cibola	Mckinley	Valencia	Total--	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
620	Aparejo-Venadito complex, 1 to 5 percent slopes-----	17,277	0	2,626	19,903	0.7
625	Hagerman-Bond association, 1 to 10 percent slopes-----	59,606	0	2,016	61,622	2.3
630	Bond-Rizozo-Rock outcrop complex, 2 to 20 percent slopes-----	1,528	0	2,323	3,851	0.1
640	Flaco-Berto loams, 0 to 5 percent slopes-----	13,031	0	5,825	18,856	0.7
641	Berto-Flaco cobbly loams, 1 to 10 percent slopes-----	23,122	0	1,131	24,253	0.9
645	Penistaja-Oelop association, 0 to 5 percent slopes-----	9,580	0	2,721	12,301	0.5
650	Winona-Tanbark-Rock outcrop association, 15 to 60 percent slopes-----	12,436	0	8,860	21,296	0.8
660	Rana-Rock outcrop complex, 2 to 25 percent slopes-----	30,695	0	0	30,695	1.1
	Water-----	962	497	0	1,459	0.1
	Total-----	2,556,800	32,800	106,880	2,696,480	100.0

* Less than 0.1 percent.

TABLE 3.--CAPABILITY SUBCLASSES FOR IRRIGATED LAND AND YIELDS PER ACRE OF CROPS AND PASTURE

(Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil. Only the soils suited to crops and pasture are listed)

Soil name and map symbol	Land capability	Corn	Alfalfa hay	Wheat	Pasture	Irish potatoes
		<u>Bu</u>	<u>Tons</u>	<u>Bu</u>	<u>AUM*</u>	<u>Cwt</u>
20----- Penistaja	IIIe	---	5.0	---	---	---
21----- Clovis	IIIe	---	5.0	---	---	---
40----- Aparejo	IIIe	130	5.0	80	12	250
41----- Aparejo	IIIe	120	5.0	80	13	300
45----- Aparejo	IIIe	135	4.0	80	12	---
50----- Venadito	IIIIs	110	4.5	50	12	---
51----- Venadito	IIIIs	110	4.5	50	12	---
52----- Venadito Variant	IVe	135	3.0	50	7	---
55----- Glenberg-San Mateo	IIIe	---	5.0	---	---	---
57, 58----- San Mateo	IIIe	---	5.0	---	13	---
60----- Sparank	IIIIs	---	5.0	---	12	---
61----- Sparham	IIIIs	---	1.5	---	9	---
66----- Zia	IIIe	---	5.0	---	8	---
70----- Catman	IIIIs	---	3.0	50	8	---
72----- Catman Variant	IIIIs	---	1.5	40	5	---
73----- Catman	IIIIs	---	3.0	50	8	---
75----- Hickman	IIIe	---	5.0	50	10	---

* Animal unit month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

TABLE 4.--WOODLAND MANAGEMENT AND PRODUCTIVITY

(Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available)

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			
		Erosion hazard	Seedling mortality	Wind-throw hazard	Plant competition	Common trees	Site index	Productivity class*	Trees to plant
120**: Rock outcrop.									
Laporte-----	1R	Severe	Severe	Severe	Slight	Oneseed juniper----- Pinyon-----	36 ---	1 ---	
130**: Laporte-----	1D	Slight	Severe	Severe	Slight	Pinyon----- Oneseed juniper-----	40 ---	1 ---	
Rock outcrop.									
272**: Cebolleta-----	3F	Slight	Moderate	Moderate	Moderate	Ponderosa pine-----	51	3	Ponderosa pine.
Borrego-----	3D	Moderate	Moderate	Severe	Moderate	Ponderosa pine-----	55	3	
Rock outcrop.									
278**: Microy-----	3C	Slight	Slight	Slight	Moderate	Ponderosa pine-----	51	3	Ponderosa pine.
Rock outcrop.									
282----- Cebolleta	3F	Slight	Moderate	Moderate	Moderate	Ponderosa pine-----	51	3	Ponderosa pine.
284**: Cebolleta-----	3X	Moderate	Moderate	Moderate	Moderate	Ponderosa pine----- Douglas fir-----	57 ---	3 ---	Ponderosa pine.
Rock outcrop.									
286**: Cebolleta-----	3F	Slight	Moderate	Moderate	Moderate	Ponderosa pine-----	51	3	Ponderosa pine.
Raton-----	4X	Moderate	Moderate	Severe	Slight	Ponderosa pine----- Douglas fir-----	65 ---	4 ---	Ponderosa pine.
291----- Paguete	1C	Moderate	Moderate	Slight	Severe	Oneseed juniper----- Pinyon-----	40 ---	1 ---	Pinyon.
294**: Parkay-----	5F	Moderate	Slight	Slight	Moderate	Engelmann spruce---- Corkbark fir----- Douglas fir-----	75 --- 77	5 --- ---	Engelmann spruce, Douglas fir.
Rock outcrop.									
310----- Mirabal	3D	Slight	Moderate	Moderate	Slight	Ponderosa pine----- Douglas fir-----	60 62	3 ---	Ponderosa pine.
315**: Abersito, cobble-----	4X	Slight	Moderate	Moderate	Slight	Ponderosa pine-----	66	4	Ponderosa pine.

See footnotes at end of table.

TABLE 4.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordi-nation symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Seedling mortal-ity	Wind-throw hazard	Plant competi-tion	Common trees	Site index	Produc-tivity class*	
315**: Abersito----- Rock outcrop.	4X	Moderate	Moderate	Moderate	Slight	Ponderosa pine-----	67	4	Ponderosa pine.
320----- Cinnadale	4D	Slight	Moderate	Moderate	Slight	Ponderosa pine-----	65	4	Ponderosa pine.
325----- Moreno Variant	6A	Slight	Slight	Slight	Severe	Ponderosa pine-----	87	6	Ponderosa pine.
330----- Moreno	5A	Slight	Slight	Slight	Severe	Ponderosa pine-----	79	5	Ponderosa pine.
350**: Rock outcrop.									
Stout-----	3D	Slight	Slight	Severe	Slight	Ponderosa pine-----	50	3	
500**: Timhus-----	1R	Severe	Moderate	Slight	Slight	Pinyon----- Oneseed juniper-----	26 ---	1 ---	
Bandera-----	3R	Slight	Moderate	Slight	Moderate	Ponderosa pine-----	56	3	Ponderosa pine.
514**: Raton-----	2X	Slight	Moderate	Severe	Slight	Ponderosa pine----- Pinyon----- Rocky Mountain juniper -----	42 --- ---	2 --- ---	
Rock outcrop.									
515**: Rock outcrop.									
Vessilla-----	1R	Severe	Moderate	Severe	Slight	Pinyon----- Oneseed juniper-----	50 ---	1 ---	
Mion-----	1R	Severe	Moderate	Severe	Moderate	Pinyon----- Oneseed juniper-----	20 ---	1 ---	
518**: Borrego----- Charo. Rock outcrop.	3D	Moderate	Moderate	Severe	Moderate	Ponderosa pine-----	55	3	
520**: Celacy-----	1A	Slight	Moderate	Slight	Moderate	Oneseed juniper----- Pinyon----- Utah juniper-----	15 --- ---	1 --- ---	
Atarque.									

See footnotes at end of table.

TABLE 4.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Seedling mortality	Wind-throw hazard	Plant competition	Common trees	Site index	Productivity class*	
522**: Bandera, 30 to 45 percent slopes-----	3R	Slight	Moderate	Slight	Moderate	Ponderosa pine-----	56	3	Ponderosa pine.
Bandera, 15 to 30 percent slopes-----	3F	Slight	Moderate	Slight	Moderate	Ponderosa pine-----	64	3	Ponderosa pine.
523**: Charo-----	4C	Slight	Slight	Moderate	Moderate	Ponderosa pine----- Pinyon----- Rocky Mountain juniper-----	66 --- ---	4 --- ---	Ponderosa pine.
Raton-----	3X	Moderate	Moderate	Severe	Slight	Ponderosa pine----- Douglas fir-----	55 ---	3 ---	Ponderosa pine.
536----- McGaffey	6A	Moderate	Slight	Slight	Severe	Ponderosa pine-----	87	6	Ponderosa pine.
537**: Millpaw-----	1C	Slight	Moderate	Slight	Severe	Pinyon----- Oneseed juniper-----	43 ---	1 ---	Pinyon, oneseed juniper.
Loarc-----	1A	Slight	Moderate	Slight	Moderate	Pinyon----- Oneseed juniper-----	45 ---	1 ---	Pinyon.
540----- Montecito	1C	Slight	Slight	Slight	Severe	Oneseed juniper----- Pinyon-----	34 ---	1 ---	
550**: Nogal-----	1C	Slight	Moderate	Moderate	Moderate	Pinyon----- Oneseed juniper-----	36 ---	1 ---	Pinyon, oneseed juniper.
Galestina.									
555**: Pinitos-----	1A	Slight	Moderate	Slight	Moderate	Pinyon----- Oneseed juniper-----	45 ---	1 ---	Pinyon.
Ribera-----	1A	Slight	Slight	Slight	Moderate	Pinyon----- Oneseed juniper-----	45 ---	1 ---	Pinyon.
560**: Flugle-----	1A	Slight	Slight	Slight	Severe	Pinyon----- Oneseed juniper-----	40 ---	1 ---	
Teco.									
561**: Flugle-----	1A	Slight	Slight	Slight	Severe	Pinyon----- Oneseed juniper-----	40 ---	1 ---	
Quintana-----	1A	Moderate	Slight	Slight	Severe	Pinyon----- Oneseed juniper-----	44 ---	1 ---	

See footnotes at end of table.

TABLE 4.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns				Potential productivity			Trees to plant
		Erosion hazard	Seedling mortality	Wind-throw hazard	Plant competition	Common trees	Site index	Productivity class*	
565----- Quintana	1A	Moderate	Slight	Slight	Severe	Pinyon----- Oneseed juniper-----	35 ---	1 ---	
570**: Torreon-----	1F	Slight	Slight	Slight	Severe	Pinyon----- Juniper-----	45 ---	1 ---	
Rock outcrop. Cabezon-----	1D	Moderate	Severe	Severe	Slight	Pinyon----- Oneseed juniper-----	47 ---	1 ---	
577**: Cabezon-----	1D	Slight	Severe	Severe	Slight	Pinyon----- Oneseed juniper-----	45 ---	1 ---	
Montecito. Rock outcrop.									
579**: Cabezon-----	1D	Slight	Severe	Severe	Slight	Pinyon----- Oneseed juniper-----	43 ---	1 ---	
Cantina-----	1C	Slight	Slight	Slight	Moderate	Pinyon----- Oneseed juniper-----	55 ---	1 ---	Pinyon.
581**: Laporte-----	1D	Slight	Severe	Severe	Slight	Pinyon----- Oneseed juniper-----	45 ---	1 ---	
Vessilla-----	1D	Moderate	Moderate	Severe	Slight	Pinyon----- Oneseed juniper-----	35 ---	1 ---	
582----- Kenray	3S	Severe	Severe	Slight	Moderate	Ponderosa pine----- Pinyon----- Oneseed juniper-----	60 --- ---	3 --- ---	Ponderosa pine.
591**: Valnor-----	2A	Slight	Slight	Slight	Moderate	Ponderosa pine-----	45	2	Ponderosa pine.
Techado-----	2D	Moderate	Moderate	Severe	Moderate	Ponderosa pine----- Rocky Mountain juniper-----	45 ---	2 ---	Ponderosa pine.
615**: Trag-----	3A	Slight	Slight	Slight	Severe	Ponderosa pine-----	63	3	Ponderosa pine.
Techado-----	3R	Severe	Moderate	Moderate	Moderate	Ponderosa pine----- Rocky Mountain juniper-----	56 ---	3 ---	
Rock outcrop.									

* Productivity class is the yield in cubic meters per hectare per year calculated at the age of culmination of mean annual increment for fully stocked natural stands.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 5.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS

(The symbol < means less than; > means more than. Absence of an entry indicates that trees generally do not grow to the given height on that soil. Only the soils suited to windbreaks and environmental plantings are listed)

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
20----- Penistaja	---	Pinyon, fourwing saltbush, lilac.	Austrian pine, eastern redcedar, Rocky Mountain juniper, ponderosa pine, white fir.	Russian olive, green ash.	Siberian elm, Lombardy poplar.
21----- Clovis	Fourwing saltbush	Skunkbush sumac, Amur honeysuckle, lilac.	Green ash, honeylocust, golden willow.	Russian olive-----	Siberian elm.
30----- Warm Springs	---	Lilac, Siberian peashrub, tatarian honeysuckle.	---	Golden willow, Russian olive, plains cottonwood.	Siberian elm.
40----- Aparejo	Fourwing saltbush	Pinyon, skunkbush sumac, Amur honeysuckle, lilac.	Eastern redcedar, green ash, honeylocust, golden willow.	Russian olive-----	Siberian elm.
41----- Aparejo	Fourwing saltbush	Pinyon, skunkbush sumac, Amur honeysuckle, lilac.	Eastern redcedar, Rocky Mountain juniper, green ash, honeylocust, golden willow.	Russian olive-----	Siberian elm.
45----- Aparejo	Fourwing saltbush	Pinyon, skunkbush sumac, Amur honeysuckle, lilac.	Eastern redcedar, green ash, honeylocust, golden willow.	Russian olive-----	Siberian elm.
50, 51----- Venadito	Fourwing saltbush, lilac.	Green ash, skunkbush sumac, American plum.	Siberian elm, Russian mulberry, Osageorange.	---	---
52----- Venadito Variant	Lilac-----	Austrian pine, eastern redcedar, Rocky Mountain juniper, green ash.	Siberian elm, Russian mulberry, Osageorange.	---	---
55*: Glenberg-----	Lilac-----	Eastern redcedar, Rocky Mountain juniper, pinyon, American plum, Amur honeysuckle.	Green ash, honeylocust, Osageorange.	Russian olive, Siberian elm.	---
San Mateo-----	Lilac-----	Eastern redcedar, Rocky Mountain juniper, pinyon, American plum, Amur honeysuckle.	Green ash, honeylocust, Osageorange.	Russian olive, Siberian elm.	---

See footnote at end of table.

TABLE 5.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
56----- Mespun	Lilac, fourwing saltbush, western sandcherry.	Austrian pine, redcedar, Rocky Mountain juniper, ponderosa pine, Siberian elm, green ash.	---	---	---
57, 58----- San Mateo	Lilac-----	Pinyon, Amur honeysuckle, American plum, eastern redcedar, Rocky Mountain juniper, fourwing saltbush.	Osageorange, honeylocust, green ash.	Russian olive, Siberian elm.	---
60----- Sparank	Lilac-----	Austrian pine, eastern redcedar, Rocky Mountain juniper, Russian olive, green ash, skunkbush sumac, American plum.	Siberian elm, Russian mulberry, Osageorange.	---	---
61. Sparham**					
62. Sparank**					
66----- Zia	Fourwing saltbush, lilac, western sandcherry.	Austrian pine, eastern redcedar, Rocky Mountain juniper, ponderosa pine, pinyon, Siberian elm, green ash.	Russian olive, honeylocust.	---	---
70----- Catman	Lilac-----	Austrian pine, eastern redcedar, Rocky Mountain juniper, Russian olive, green ash, skunkbush sumac, American plum, fourwing saltbush.	Siberian elm, Russian mulberry, Osageorange.	---	---
72. Catman Variant**					
73----- Catman	Lilac-----	Austrian pine, eastern redcedar, Rocky Mountain juniper, Russian olive, green ash, skunkbush sumac, American plum, fourwing saltbush.	Siberian elm, Russian mulberry, Osageorange.	---	---

See footnote at end of table.

TABLE 5.--WINDBREAKS AND ENVIRONMENTAL PLANTINGS--Continued

Soil name and map symbol	Trees having predicted 20-year average height, in feet, of--				
	<8	8-15	16-25	26-35	>35
75----- Hickman	Fourwing saltbush	Skunkbush sumac, lilac.	Eastern redcedar, Rocky Mountain juniper, blue spruce.	Russian olive, green ash, honeylocust, golden willow.	Siberian elm, Lombardy poplar.
100----- Manzano	---	Fourwing saltbush, skunkbush sumac, lilac, American plum.	Austrian pine, eastern redcedar, Rocky Mountain juniper, ponderosa pine.	Russian olive, green ash.	Siberian elm, Lombardy poplar.
218*: Viuda**					
Penistaja-----	---	Pinyon, fourwing saltbush, lilac.	Austrian pine, eastern redcedar, Rocky Mountain juniper, ponderosa pine, white fir.	Russian olive, green ash.	Siberian elm, Lombardy poplar.
Rock outcrop.					

* See description of the map unit for composition and behavior characteristics of the map unit.

** Planting trees and shrubs may be suitable if special treatment is used.

TABLE 6.--RECREATIONAL DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
10*. Lava flows					
20----- Penistaja	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
21----- Clovis	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
25*: Hickman-----	Severe: flooding.	Slight-----	Moderate: slope, small stones, flooding.	Slight-----	Moderate: flooding.
Catman-----	Severe: flooding.	Moderate: excess salt.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: excess salt, flooding.
30----- Warm Springs	Severe: flooding.	Moderate: flooding, wetness, excess salt.	Severe: flooding.	Moderate: flooding.	Severe: flooding.
40, 41----- Aparejo	Severe: flooding.	Slight-----	Moderate: flooding.	Slight-----	Moderate: flooding.
45----- Aparejo	Severe: flooding.	Moderate: too clayey.	Moderate: too clayey, flooding.	Moderate: too clayey.	Severe: too clayey.
50, 51----- Venadito	Severe: flooding.	Moderate: percs slowly.	Moderate: flooding, percs slowly.	Slight-----	Moderate: flooding.
52----- Venadito Variant	Severe: flooding.	Moderate: percs slowly.	Moderate: flooding, percs slowly.	Slight-----	Moderate: flooding, depth to rock.
55*: Glenberg-----	Severe: flooding.	Slight-----	Moderate: small stones, flooding.	Slight-----	Moderate: droughty, flooding.
San Mateo-----	Severe: flooding.	Slight-----	Moderate: flooding.	Slight-----	Moderate: flooding.
56----- Mespun	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.	Moderate: droughty.
57, 58----- San Mateo	Severe: flooding.	Slight-----	Moderate: slope, flooding.	Slight-----	Moderate: flooding.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
60----- Sparank	Severe: flooding.	Moderate: percs slowly.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: flooding.
61----- Sparham	Severe: flooding.	Moderate: excess salt, percs slowly.	Moderate: flooding, percs slowly, excess salt.	Slight-----	Moderate: excess salt, flooding.
62----- Sparank	Severe: flooding, excess sodium, excess salt.	Severe: excess sodium, excess salt.	Severe: excess sodium, excess salt.	Slight-----	Severe: excess salt, excess sodium, droughty.
66----- Zia	Slight-----	Slight-----	Moderate: slope, small stones.	Slight-----	Slight.
70----- Catman	Severe: flooding.	Moderate: excess salt.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: excess salt, flooding.
72----- Catman Variant	Severe: flooding.	Moderate: wetness, excess salt, percs slowly.	Moderate: slope, wetness, flooding.	Slight-----	Moderate: excess salt, droughty, flooding.
73----- Catman	Severe: flooding.	Moderate: excess salt.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: excess salt, flooding.
75----- Hickman	Severe: flooding.	Slight-----	Moderate: slope, small stones, flooding.	Slight-----	Moderate: flooding.
100----- Manzano	Severe: flooding.	Slight-----	Moderate: slope, flooding.	Slight-----	Moderate: flooding.
120*: Rock outcrop.					
Laporte-----	Severe: slope, large stones, depth to rock.	Severe: slope, large stones, depth to rock.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: large stones, slope, depth to rock.
130*: Laporte-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, small stones.	Slight-----	Severe: depth to rock.
Rock outcrop.					
200----- Penistaja	Slight-----	Slight-----	Severe: slope.	Slight-----	Slight.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
205----- Ildfonso	Severe: small stones.	Severe: small stones.	Severe: slope, small stones.	Slight-----	Severe: small stones, droughty.
210*: Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
Penistaja----- Rock outcrop.	Slight-----	Slight-----	Severe: slope.	Slight-----	Slight.
218*: Viuda-----	Severe: large stones, small stones, depth to rock.	Severe: large stones, small stones, depth to rock.	Severe: large stones, slope, small stones.	Moderate: large stones.	Severe: small stones, large stones, depth to rock.
Penistaja----- Rock outcrop.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
230*: Dumps. Pits.					
251*: Skyvillage-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Moderate: slope.	Severe: slope, depth to rock.
Rock outcrop.					
Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Severe: depth to rock.
257*: Sparank-----	Severe: flooding.	Moderate: percs slowly.	Moderate: flooding, percs slowly.	Slight-----	Moderate: flooding.
San Mateo-----	Severe: flooding.	Moderate: dusty.	Moderate: slope, flooding, dusty.	Moderate: dusty.	Moderate: flooding.
259----- Mikim	Moderate: dusty.	Moderate: dusty.	Moderate: slope, small stones, dusty.	Moderate: dusty.	Slight.
262*: Poley-----	Severe: slope, large stones, small stones.	Severe: slope, large stones, small stones.	Severe: large stones, slope, small stones.	Moderate: large stones, slope, dusty.	Severe: small stones, large stones, slope.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
262*: Pojoaque-----	Severe: slope, large stones, small stones.	Severe: slope, large stones, small stones.	Severe: large stones, slope, small stones.	Moderate: large stones, slope, dusty.	Severe: small stones, large stones, slope.
264----- Tapia	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: large stones.
270----- Charo	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: large stones, depth to rock.
272*: Cebolleta-----	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: large stones, slope.	Moderate: large stones.	Severe: large stones.
Borrego-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
Rock outcrop.					
276----- Trag	Slight-----	Slight-----	Moderate: slope, small stones.	Slight-----	Moderate: large stones.
278*: Microy-----	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Moderate: large stones, slope.	Severe: slope.
Rock outcrop.					
282----- Cebolleta	Moderate: large stones.	Moderate: large stones.	Severe: large stones, slope.	Moderate: large stones.	Severe: large stones.
284*: Cebolleta-----	Severe: slope, large stones.	Severe: slope, large stones.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: large stones, slope.
Rock outcrop.					
286*: Cebolleta-----	Severe: large stones.	Severe: large stones.	Severe: large stones, small stones.	Moderate: large stones.	Severe: large stones.
Raton-----	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, depth to rock.	Slight-----	Severe: depth to rock.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
290*: Paguate-----	Moderate: dusty.	Moderate: dusty.	Moderate: slope, small stones, depth to rock.	Moderate: dusty.	Moderate: large stones, depth to rock.
Hackroy-----	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, depth to rock.	Moderate: large stones.	Severe: large stones, depth to rock.
291----- Paguate	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, small stones.	Moderate: large stones.	Moderate: small stones, large stones, depth to rock.
294*: Parkay-----	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Severe: slope.	Severe: slope.
Rock outcrop.					
300----- Saladon	Severe: flooding, wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.
310----- Mirabal	Severe: small stones.	Severe: small stones.	Severe: slope, small stones.	Slight-----	Severe: small stones.
315*: Abersito, cobbly----	Severe: slope, large stones.	Severe: slope, large stones.	Severe: large stones, slope, small stones.	Severe: large stones.	Severe: large stones, slope.
Abersito-----	Moderate: small stones.	Moderate: small stones.	Severe: slope, small stones.	Slight-----	Moderate: small stones, large stones.
Rock outcrop.					
320----- Cinnadale	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, small stones, depth to rock.	Slight-----	Severe: depth to rock.
325----- Moreno Variant	Slight-----	Slight-----	Severe: slope.	Slight-----	Slight.
330----- Moreno	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: large stones.
340----- Yankee	Slight-----	Slight-----	Slight-----	Slight-----	Slight.
350*: Rock outcrop.					

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
350*: Stout-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
406*: Poley-----	Severe: large stones.	Severe: large stones.	Severe: large stones, slope, small stones.	Moderate: large stones, dusty.	Severe: large stones.
Rock outcrop.					
407*: Viuda-----	Severe: large stones, small stones, depth to rock.	Severe: large stones, small stones, depth to rock.	Severe: large stones, small stones.	Moderate: large stones.	Severe: small stones, large stones, depth to rock.
Rock outcrop.					
419----- Navajo	Severe: flooding, excess sodium.	Severe: excess sodium.	Severe: excess sodium.	Slight-----	Severe: excess sodium.
420*: Navajo-----	Severe: flooding, excess sodium.	Severe: excess sodium.	Severe: excess sodium.	Slight-----	Severe: excess sodium.
Suwanee-----	Severe: flooding.	Slight-----	Moderate: slope, flooding.	Slight-----	Moderate: flooding.
424*: Mespun-----	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.	Moderate: droughty.
Palma-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
426*: Sheppard-----	Slight-----	Slight-----	Severe: slope.	Slight-----	Moderate: droughty.
Shiprock-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: droughty.
432*: Winona-----	Severe: small stones.	Severe: small stones.	Severe: slope, small stones.	Moderate: dusty.	Severe: small stones.
Rock outcrop.					
434*: Rizozo-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: slope, depth to rock.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
434*: Rock outcrop.					
446*: Harvey-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Oelop-----	Moderate: dusty.	Moderate: dusty.	Moderate: dusty.	Moderate: dusty.	Slight.
476----- Saïdo	Moderate: excess salt.	Moderate: excess salt.	Severe: slope.	Slight-----	Moderate: excess salt.
485*: Rock outcrop.					
Mion-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: large stones, slope, depth to rock.
487*: Mion-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, erodes easily.	Severe: slope, depth to rock.
Badland.					
500*: Timhus-----	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope, small stones.	Severe: small stones, slope.
Bandera-----	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope, small stones.	Severe: small stones, droughty, slope.
505*: Flugle-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Goesling-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
514*: Raton-----	Severe: large stones, depth to rock.	Severe: large stones, depth to rock.	Severe: large stones, depth to rock.	Severe: large stones.	Severe: large stones, depth to rock.
Rock outcrop.					
515*: Rock outcrop.					
Vessilla-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope.	Severe: slope, depth to rock.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
515*: Mion-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, erodes easily.	Severe: slope, depth to rock.
518*: Borrego-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
Charo----- Rock outcrop.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: large stones, depth to rock.
520*: Celacy-----	Slight-----	Slight-----	Moderate: slope, depth to rock.	Slight-----	Moderate: depth to rock.
Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
522*: Bandera, 30 to 45 percent slopes-----	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Severe: slope.	Severe: droughty, slope.
Bandera, 15 to 30 percent slopes-----	Severe: slope.	Severe: slope.	Severe: slope, small stones.	Moderate: slope.	Severe: droughty, slope.
523*: Charo-----	Moderate: large stones.	Moderate: large stones.	Moderate: slope, small stones.	Slight-----	Moderate: large stones, depth to rock.
Raton-----	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, slope.	Severe: large stones.	Severe: large stones, depth to rock.
525*: Catman-----	Severe: flooding.	Moderate: excess salt.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: excess salt, flooding.
Silkie-----	Moderate: percs slowly.	Moderate: percs slowly.	Severe: slope.	Slight-----	Slight.
535----- Millpaw	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
536----- McGaffey	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
537*: Millpaw-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Loarc-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
540----- Montecito	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight-----	Moderate: large stones, slope.
550*: Nogal-----	Slight-----	Slight-----	Moderate: slope, depth to rock.	Slight-----	Moderate: depth to rock.
Galestina-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
555*: Pinitos-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Ribera-----	Slight-----	Slight-----	Moderate: slope, depth to rock.	Slight-----	Moderate: depth to rock.
560*: Flugle-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Teco-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
561*: Flugle-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Quintana-----	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight-----	Moderate: slope.
565----- Quintana	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight-----	Moderate: slope.
570*: Torreon-----	Severe: slope, large stones, small stones.	Severe: slope, large stones, small stones.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: small stones, large stones, slope.
Rock outcrop.					
Cabazon-----	Severe: slope, large stones, depth to rock.	Severe: slope, large stones, depth to rock.	Severe: large stones, slope, small stones.	Severe: large stones, slope.	Severe: large stones, slope, depth to rock.
575*: Teco-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
575*: Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Severe: depth to rock.
576----- Teco	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
577*: Cabezon-----	Severe: large stones, depth to rock.	Severe: large stones, depth to rock.	Severe: large stones, slope, small stones.	Severe: large stones.	Severe: large stones, depth to rock.
Montecito----- Rock outcrop.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: large stones.
579*: Cabezon-----	Severe: large stones, depth to rock.	Severe: large stones, depth to rock.	Severe: large stones, small stones.	Severe: large stones.	Severe: large stones, depth to rock.
Cantina-----	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight-----	Slight.
581*: Laporte-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, small stones.	Slight-----	Severe: depth to rock.
Vessilla-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
582----- Kenray	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.	Moderate: droughty, slope.
585----- Moncha	Moderate: percs slowly.	Moderate: percs slowly.	Severe: slope.	Slight-----	Slight.
586*: Venadito-----	Severe: flooding.	Moderate: percs slowly.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: flooding.
Teco-----	Slight-----	Slight-----	Severe: slope.	Slight-----	Slight.
591*: Valnor-----	Slight-----	Slight-----	Moderate: slope, small stones, depth to rock.	Slight-----	Moderate: depth to rock.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
591*: Techado-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, small stones, depth to rock.	Moderate: slope.	Severe: slope, depth to rock.
610*: Grieta-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Shiprock-----	Slight-----	Slight-----	Severe: slope.	Slight-----	Moderate: droughty.
611*: Grieta-----	Slight-----	Slight-----	Severe: slope.	Slight-----	Slight.
Kiki-----	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight-----	Moderate: slope, depth to rock.
615*: Trag-----	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Moderate: slope.	Severe: slope.
Techado-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: large stones, slope, small stones.	Severe: slope.	Severe: slope, depth to rock.
Rock outcrop.					
618----- Netoma	Moderate: dusty, excess salt.	Moderate: excess salt, dusty.	Severe: slope.	Moderate: dusty.	Moderate: excess salt.
619----- Venadito	Severe: flooding.	Moderate: percs slowly.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: flooding.
620*: Aparejo-----	Severe: flooding.	Slight-----	Moderate: slope, flooding.	Slight-----	Moderate: flooding.
Venadito-----	Severe: flooding.	Moderate: percs slowly.	Moderate: slope, flooding, percs slowly.	Slight-----	Moderate: flooding.
625*: Hagerman-----	Slight-----	Slight-----	Moderate: slope, depth to rock.	Slight-----	Moderate: depth to rock.
Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.

See footnote at end of table.

TABLE 6.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
630*: Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Slight-----	Severe: depth to rock.
Rizozo-----	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: erodes easily.	Severe: depth to rock.
Rock outcrop.					
640*: Flaco-----	Slight-----	Slight-----	Moderate: slope, small stones.	Slight-----	Moderate: depth to rock.
Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Severe: depth to rock.
641*: Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: large stones, depth to rock.	Moderate: dusty.	Severe: depth to rock.
Flaco-----	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, small stones.	Moderate: dusty.	Moderate: small stones, large stones.
645*: Penistaja-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
Oelop-----	Moderate: dusty.	Moderate: dusty.	Moderate: dusty.	Moderate: dusty.	Slight.
650*: Winona-----	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope, small stones.	Severe: slope.	Severe: small stones, slope.
Tanbark-----	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, depth to rock.	Severe: slope, erodes easily.	Severe: slope, depth to rock.
Rock outcrop.					
660*: Rana-----	Severe: large stones.	Severe: large stones.	Severe: large stones, slope, small stones.	Severe: large stones.	Severe: large stones, too clayey.
Rock outcrop.					

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 7.--WILDLIFE HABITAT

(See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
10*. Lava flows											
20----- Penistaja	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
21----- Clovis	Fair	Good	Good	---	Poor	Good	Fair	Fair	---	Fair	Fair.
25*: Hickman-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Catman-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
30----- Warm Springs	Very poor.	Very poor.	Poor	---	Poor	Fair	Fair	Poor	---	Fair	Poor.
40----- Aparejo	Good	Good	Fair	---	Fair	Good	Fair	Good	---	Fair	Fair.
41----- Aparejo	Fair	Good	Good	---	Good	Poor	Very poor.	Good	---	Very poor.	Good.
45----- Aparejo	Good	Good	Fair	---	Fair	Good	Fair	Good	---	Fair	Fair.
50, 51----- Venadito	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
52----- Venadito Variant	Fair	Fair	Fair	---	Poor	Poor	Fair	Fair	Good	Poor	Poor.
55*: Glenberg-----	Poor	Poor	Fair	---	Fair	Poor	Poor	Poor	---	Poor	Fair.
San Mateo-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
56----- Mespun	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	---	Very poor.	Fair.
57, 58----- San Mateo	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
60----- Sparank	Fair	Fair	Fair	---	Fair	Good	Good	Fair	---	Good	Fair.
61----- Sparham	Fair	Fair	Poor	---	Poor	Fair	Fair	Fair	---	Fair	Poor.
62----- Sparank	Very poor.	Very poor.	Very poor.	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Very poor.

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
66----- Zia	Good	Good	Good	Fair	Fair	Fair	Poor	Good	Good	Poor	Fair.
70----- Catman	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
72----- Catman Variant	Fair	Fair	Poor	---	Poor	Fair	Poor	Fair	---	Poor	Poor.
73----- Catman	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
75----- Hickman	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
100----- Manzano	Fair	Good	Fair	---	Fair	Fair	Fair	Fair	---	Fair	---
120*: Rock outcrop.											
Laporte-----	Poor	Fair	Poor	Very poor.	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.	Poor.
130*: Laporte-----	Poor	Fair	Poor	Very poor.	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.	Poor.
Rock outcrop.											
200----- Penistaja	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
205----- Ildefonso	Poor	Poor	Poor	Poor	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Very poor.
210*: Bond-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
Penistaja-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Rock outcrop.											
218*: Viuda-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Penistaja-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Rock outcrop.											
230*: Dumps.											
Pits.											

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
251*: Skyvillage-----	Very poor.	Very poor.	Poor	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Poor.
Rock outcrop.											
Bond-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
257*: Sparank-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
San Mateo-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
259----- Mikim	Poor	Fair	Fair	---	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Fair.
262*: Poley-----	Poor	Fair	Fair	---	Fair	Very poor.	Very poor.	Fair	---	Very poor.	Fair.
Pojoaque-----	Poor	Fair	Fair	---	Fair	Very poor.	Very poor.	Fair	---	Very poor.	Fair.
264----- Tapia	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
270----- Charo	Poor	Poor	Fair	Good	Fair	Poor	Very poor.	Poor	Good	Very poor.	Fair.
272*: Cebolleta-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
Borrego-----	Very poor.	Very poor.	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
Rock outcrop.											
276----- Trag	Fair	Good	Fair	---	Fair	Very poor.	Very poor.	Fair	---	Very poor.	Fair.
278*: Microy-----	Poor	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.	Fair.
Rock outcrop.											
282----- Cebolleta	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
284*: Cebolleta-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
Rock outcrop.											

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
286*: Cebolleta-----	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
Raton-----	Very poor.	Very poor.	Fair	Very poor.	Fair	Very poor.	Very poor.	Poor	Very poor.	Very poor.	Fair.
290*: Pagate-----	Poor	Fair	Good	---	Good	Poor	Poor	Fair	---	Poor	Good.
Hackroy-----	Very poor.	Very poor.	Poor	Poor	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor.
291----- Pagate	Poor	Fair	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Poor	Fair.
294*: Parkay-----	Poor	Poor	Good	Fair	Good	Very poor.	Very poor.	Fair	Fair	Very poor.	Good.
Rock outcrop.											
300----- Saladon	Poor	Poor	Good	---	Poor	Good	Good	Poor	---	Good	Fair.
310----- Mirabal	Poor	Fair	Poor	Very poor.	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Poor.
315*: Abersito, cobbly--	Poor	Poor	Good	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
Abersito-----	Poor	Poor	Good	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
Rock outcrop.											
320----- Cinnadale	Poor	Poor	Fair	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.	Fair.
325----- Moreno Variant	Fair	Good	Good	Good	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
330----- Moreno	Poor	Fair	Good	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
340----- Yankee	Fair	Good	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
350*: Rock outcrop.											
Stout-----	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
406*: Poley-----	Poor	Fair	Fair	---	Fair	Very poor.	Very poor.	Fair	---	Very poor.	Fair.
Rock outcrop.											

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
407*: Viuda-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Rock outcrop.											
419----- Navajo	Very poor.	Very poor.	Poor	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Poor.
420*: Navajo-----	Very poor.	Very poor.	Poor	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Poor.
Suwanee-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
424*: Mespun-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	---	Very poor.	Fair.
Palma-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	---	Very poor.	Fair.
426*: Sheppard-----	Very poor.	Very poor.	Poor	---	Poor	Very poor.	Very poor.	Very poor.	---	Very poor.	Poor.
Shiprock-----	Very poor.	Very poor.	Poor	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Poor.
432*: Winona-----	Very poor.	Very poor.	Poor	---	Poor	Very poor.	Very poor.	Very poor.	---	Very poor.	Poor.
Rock outcrop.											
434*: Rizozo-----	Very poor.	Very poor.	Poor	---	Poor	Very poor.	Very poor.	Very poor.	---	Very poor.	Poor.
Rock outcrop.											
446*: Harvey-----	Poor	Fair	Fair	---	Poor	Poor	Very poor.	Fair	---	Very poor.	Fair.
Oelop-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
476----- Saïdo	Very poor.	Very poor.	Fair	---	Fair	Very poor.	Very poor.	Poor	---	Very poor.	Fair.
485*: Rock outcrop.											
Mion-----	Very poor.	Poor	Poor	---	Poor	Very poor.	Very poor.	Poor	---	Very poor.	Poor.

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
487*: Mion-----	Very poor.	Very poor.	Fair	---	Fair	Very poor.	Very poor.	Very poor.	---	Very poor.	Fair.
Badland.											
500*: Timhus-----	Poor	Fair	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Good	Very poor.	Fair.
Bandera-----	Very poor.	Very poor.	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
505*: Flugle-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Goesling-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
514*: Raton.											
Rock outcrop.											
515*: Rock outcrop.											
Vessilla-----	Very poor.	Very poor.	Poor	Very poor.	Poor	Poor	Very poor.	Very poor.	Very poor.	Very poor.	Poor.
Mion-----	Very poor.	Very poor.	Fair	---	Fair	Very poor.	Very poor.	Very poor.	---	Very poor.	Fair.
518*: Borrego-----	Very poor.	Very poor.	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
Charo-----	Poor	Poor	Fair	Good	Fair	Poor	Very poor.	Poor	Good	Very poor.	Fair.
Rock outcrop.											
520*: Celacy-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Atarque-----	Poor	Poor	Fair	Poor	Fair	Poor	Very poor.	Poor	Poor	Very poor.	Fair.
522*: Bandera, 30 to 45 percent slopes---	Very poor.	Very poor.	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
Bandera, 15 to 30 percent slopes---	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.	Fair.

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
523*: Charo-----	Poor	Poor	Fair	Good	Fair	Poor	Very poor.	Poor	Good	Very poor.	Fair.
Raton-----	Very poor.	Very poor.	Fair	Very poor.	Fair	Very poor.	Very poor.	Poor	Very poor.	Very poor.	Fair.
525*: Catman-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Silkie-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
535----- Millpaw	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
536----- McGaffey	Poor	Fair	Good	Good	Fair	Poor	Poor	Fair	Fair	Poor	Fair.
537*: Millpaw-----	Poor	Fair	Fair	Good	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Loarc-----	Poor	Fair	Fair	Good	Fair	Poor	Very poor.	Fair	Good	Very poor.	Fair.
540----- Montecito	Poor	Fair	Fair	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.	Fair.
550*: Nogal-----	Poor	Fair	Fair	Good	Poor	Very poor.	Very poor.	Fair	Good	Very poor.	---
Galestina-----	Poor	Fair	Good	---	Good	Poor	Very poor.	Fair	---	Very poor.	Good.
555*: Pinitos-----	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.	Good.
Ribera-----	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.	Good.
560*: Flugle-----	Poor	Fair	Fair	Good	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Teco-----	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
561*: Flugle-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Quintana-----	Poor	Fair	Fair	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
565----- Quintana	Poor	Fair	Fair	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
570*: Torreon-----	Poor	Fair	Fair	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
Rock outcrop.											
Cabazon-----	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Fair.
575*: Teco-----	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
Atarque-----	Poor	Poor	Fair	Poor	Fair	Poor	Very poor.	Poor	Poor	Very poor.	Fair.
576----- Teco	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
577*: Cabazon-----	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Fair.
Montecito-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Rock outcrop.											
579*: Cabazon-----	Poor	Poor	Fair	Poor	Fair	Very poor.	Very poor.	Poor	Poor	Very poor.	Fair.
Cantina-----	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.	Good.
581*: Laporte-----	Poor	Fair	Poor	Very poor.	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.	Poor.
Vessilla-----	Very poor.	Very poor.	Poor	Very poor.	Poor	Poor	Very poor.	Very poor.	Very poor.	Very poor.	Poor.
582----- Kenray	Poor	Fair	Fair	Poor	Fair	Very poor.	Very poor.	Fair	Poor	Very poor.	Fair.
585----- Moncha	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
586*: Venadito-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Teco-----	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
591*: Valnor-----	Poor	Fair	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.	Fair.
Techado-----	Poor	Fair	Fair	Poor	Fair	Very poor.	Very poor.	Fair	Poor	Very poor.	Fair.
610*: Grieta-----	Very poor.	Very poor.	Good	---	Good	Poor	Very poor.	Poor	---	Very poor.	Good.
Shiprock-----	Very poor.	Very poor.	Poor	---	Poor	Poor	Very poor.	Very poor.	---	Very poor.	Poor.
611*: Grieta-----	Very poor.	Very poor.	Good	---	Good	Poor	Very poor.	Poor	---	Very poor.	Good.
Kiki-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
615*: Trag-----	Poor	Fair	Good	Good	Fair	Very poor.	Very poor.	Fair	Good	Very poor.	Fair.
Techado-----	Poor	Fair	Fair	Poor	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.	Fair.
Rock outcrop.											
618----- Netoma	Very poor.	Very poor.	Very poor.	---	Very poor.	Very poor.	Very poor.	Very poor.	---	Very poor.	Very poor.
619----- Venadito	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
620*: Aparejo-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Venadito-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
625*: Hagerman-----	Poor	Fair	Fair	---	Poor	Poor	Very poor.	Poor	---	Very poor.	Fair.
Bond-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
630*: Bond-----	Poor	Poor	Fair	---	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.	Fair.
Rizozo-----	Very poor.	Very poor.	Poor	---	Fair	Very poor.	Very poor.	Very poor.	---	Very poor.	Fair.
Rock outcrop.											

See footnote at end of table.

TABLE 7.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
640*: Flaco-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Berto-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
641*: Berto-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Flaco-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
645*: Penistaja-----	Poor	Fair	Fair	---	Fair	Poor	Very poor.	Fair	---	Very poor.	Fair.
Oelop-----	Poor	Poor	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
650*: Winona-----	Very poor.	Very poor.	Poor	---	Poor	Very poor.	Very poor.	Very poor.	---	Very poor.	Poor.
Tanbark-----	Very poor.	Very poor.	Fair	---	Fair	Poor	Very poor.	Poor	---	Very poor.	Fair.
Rock outcrop.											
660*: Rana-----	Very poor.	Very poor.	Very poor.	---	Fair	Very poor.	Very poor.	Very poor.	---	Very poor.	Poor.
Rock outcrop.											

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 8.--BUILDING SITE DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
10*. Lava flows						
20----- Penistaja	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: low strength.	Slight.
21----- Clovis	Slight-----	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell.	Severe: low strength.	Slight.
25*: Hickman-----	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
Catman-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, flooding.
30----- Warm Springs	Severe: wetness.	Severe: flooding.	Severe: flooding, wetness.	Severe: flooding.	Severe: flooding, frost action.	Severe: flooding.
40----- Aparejo	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
41----- Aparejo	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
45----- Aparejo	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: too clayey.
50, 51----- Venadito	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
52----- Venadito Variant	Severe: depth to rock.	Severe: flooding, shrink-swell.	Severe: flooding, depth to rock, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding, depth to rock.
55*: Glenberg-----	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: droughty, flooding.
San Mateo-----	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
56----- Mespun	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: droughty.
57, 58----- San Mateo	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
60----- Sparank	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
61----- Sparham	Moderate: too clayey, wetness, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, flooding.
62----- Sparank	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: excess salt, excess sodium, droughty.
66----- Zia	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
70----- Catman	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, flooding.
72----- Catman Variant	Severe: wetness.	Severe: flooding, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, droughty, flooding.
73----- Catman	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, flooding.
75----- Hickman	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
100----- Manzano	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
120*: Rock outcrop.						
Laporte-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: large stones, slope, depth to rock.
130*: Laporte-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Rock outcrop.						
200----- Penistaja	Slight-----	Slight-----	Slight-----	Moderate: slope.	Moderate: low strength.	Slight.
205----- Ildefonso	Moderate: slope.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: small stones, droughty.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
210*: Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Penistaja----- Rock outcrop.	Slight-----	Slight-----	Slight-----	Moderate: slope.	Moderate: low strength.	Slight.
218*: Viuda-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: small stones, large stones, depth to rock.
Penistaja----- Rock outcrop.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: low strength.	Slight.
230*: Dumps. Pits.						
251*: Skyvillage-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop. Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
257*: Sparank-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
San Mateo-----	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
259----- Mikim	Slight-----	Slight-----	Slight-----	Slight-----	Slight-----	Slight.
262*: Poley-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, large stones, slope.
Pojoaque-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, large stones, slope.
264----- Tapia	Severe: cutbanks cave.	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: large stones.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
270----- Charo	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: low strength.	Moderate: large stones, depth to rock.
272*: Cebolleta-----	Severe: depth to rock, large stones.	Severe: large stones.	Severe: depth to rock, large stones.	Severe: slope, large stones.	Severe: low strength, large stones.	Severe: large stones.
Borrego-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Rock outcrop.						
276----- Trag	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, slope.	Moderate: shrink-swell, frost action.	Moderate: large stones.
278*: Microy-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: slope.
Rock outcrop.						
282----- Cebolleta	Severe: depth to rock, large stones.	Severe: large stones.	Severe: depth to rock, large stones.	Severe: large stones.	Severe: low strength, large stones.	Severe: large stones.
284*: Cebolleta-----	Severe: depth to rock, large stones, slope.	Severe: slope, large stones.	Severe: depth to rock, slope, large stones.	Severe: slope, large stones.	Severe: low strength, slope, large stones.	Severe: large stones, slope.
Rock outcrop.						
286*: Cebolleta-----	Severe: depth to rock, large stones.	Severe: large stones.	Severe: depth to rock, large stones.	Severe: large stones.	Severe: low strength, large stones.	Severe: large stones.
Raton-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: depth to rock.
290*: Paguete-----	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: low strength.	Moderate: large stones, depth to rock.
Hackroy-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, depth to rock.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
291----- Paguate	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: depth to rock.	Moderate: depth to rock, low strength.	Moderate: small stones, large stones, depth to rock.
294*: Parkay----- Rock outcrop.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
300----- Saladon	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: shrink-swell, low strength, wetness.	Severe: wetness.
310----- Mirabal	Severe: depth to rock.	Moderate: slope, depth to rock, large stones.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, large stones.	Severe: small stones.
315*: Abersito, cobbly----- Abersito----- Rock outcrop.	Severe: depth to rock, large stones, slope.	Severe: shrink-swell, slope, large stones.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope, large stones.	Severe: shrink-swell, low strength, slope.	Severe: large stones, slope.
	Severe: depth to rock, large stones.	Severe: shrink-swell, large stones.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, large stones.	Severe: shrink-swell, low strength.	Moderate: small stones, large stones.
320----- Cinnadale	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
325----- Moreno Variant	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, slope.	Moderate: shrink-swell, frost action.	Slight.
330----- Moreno	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: large stones.
340----- Yankee	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
350*: Rock outcrop.						
Stout-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
406*: Poley-----	Moderate: too clayey, slope.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Severe: large stones.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
406*: Rock outcrop.						
407*: Viuda-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: small stones, large stones, depth to rock.
Rock outcrop.						
419----- Navajo	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: excess sodium.
420*: Navajo-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Severe: excess sodium.
Suwanee-----	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
424*: Mespun-----	Severe: cutbanks cave.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: droughty.
Palma-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.
426*: Sheppard-----	Severe: cutbanks cave.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: droughty.
Shiprock-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: droughty.
432*: Winona-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: small stones.
Rock outcrop.						
434*: Rizozo-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop.						
446*: Harvey-----	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, low strength.	Slight.
Oelop-----	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Severe: low strength.	Slight.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
476----- Saïdo	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: excess salt.
485*: Rock outcrop.						
Mion-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: large stones, slope, depth to rock.
487*: Mion-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: slope, depth to rock.
Badland.						
500*: Timhus-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, slope.
Bandera-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: small stones, droughty, slope.
505*: Flugle-----	Slight-----	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell, slope.	Moderate: shrink-swell, frost action.	Slight.
Goesling-----	Slight-----	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell, slope.	Moderate: shrink-swell.	Slight.
514*: Raton-----	Severe: depth to rock, large stones.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, depth to rock.
Rock outcrop.						
515*: Rock outcrop.						
Vessilla-----	Severe: depth to rock, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: slope, depth to rock.
Mion-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: slope, depth to rock.
518*: Borrego-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
518*: Charo-----	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: low strength.	Moderate: large stones, depth to rock.
Rock outcrop.						
520*: Celacy-----	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Moderate: depth to rock, shrink-swell.	Moderate: depth to rock.
Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
522*: Bandera, 30 to 45 percent slopes--	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Bandera, 15 to 30 percent slopes--	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
523*: Charo-----	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: low strength.	Moderate: large stones, depth to rock.
Raton-----	Severe: depth to rock, large stones.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, depth to rock.
525*: Catman-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: excess salt, flooding.
Silkie-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
535----- Millpaw	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
536----- McGaffey	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: low strength, frost action.	Slight.
537*: Millpaw-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
Loarc-----	Severe: cutbanks cave.	Slight-----	Slight-----	Moderate: slope.	Slight-----	Slight.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
540----- Montecito	Moderate: too clayey, slope.	Moderate: shrink-swell, slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: large stones, slope.
550*: Nogal-----	Moderate: depth to rock, too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: depth to rock.
Galestina-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
555*: Pinitos-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Moderate: frost action.	Slight.
Ribera-----	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, low strength.	Moderate: depth to rock.
560*: Flugle-----	Slight-----	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell, slope.	Moderate: shrink-swell, frost action.	Slight.
Teco-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
561*: Flugle-----	Slight-----	Moderate: shrink-swell.	Slight-----	Moderate: shrink-swell, slope.	Moderate: shrink-swell, frost action.	Slight.
Quintana-----	Moderate: slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Moderate: shrink-swell, low strength, slope.	Moderate: slope.
565----- Quintana	Moderate: slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Moderate: shrink-swell, low strength, slope.	Moderate: slope.
570*: Torreon-----	Severe: slope.	Severe: shrink-swell, slope.	Severe: slope.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: small stones, large stones, slope.
Rock outcrop.						
Cabazon-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope, depth to rock.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, slope, depth to rock.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
575*: Teco-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
576----- Teco	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
577*: Cabezon-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, depth to rock.
Montecito-----	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: large stones.
Rock outcrop.						
579*: Cabezon-----	Severe: depth to rock.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell.	Severe: shrink-swell, depth to rock.	Severe: depth to rock, shrink-swell, low strength.	Severe: large stones, depth to rock.
Cantina-----	Moderate: depth to rock, too clayey.	Severe: shrink-swell.	Moderate: depth to rock, shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.
581*: Laporte-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Vessilla-----	Severe: depth to rock.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope.	Severe: depth to rock.
582----- Kenray	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
585----- Moncha	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, slope.	Moderate: low strength, frost action.	Slight.
586*: Venadito-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
Teco-----	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Slight.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
591*: Valnor-----	Moderate: depth to rock, too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, low strength.	Moderate: depth to rock.
Techado-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: low strength, slope, shrink-swell.	Severe: slope, depth to rock.
610*: Grieta-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Moderate: frost action.	Slight.
Shiprock-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: droughty.
611*: Grieta-----	Slight-----	Slight-----	Slight-----	Moderate: slope.	Moderate: frost action.	Slight.
Kiki-----	Severe: depth to rock.	Moderate: shrink-swell, slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, shrink-swell, slope.	Moderate: slope, depth to rock.
615*: Trag-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Techado-----	Severe: depth to rock, slope.	Severe: shrink-swell, slope.	Severe: depth to rock, slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength, slope.	Severe: slope, depth to rock.
Rock outcrop.						
618----- Netoma	Slight-----	Slight-----	Slight-----	Moderate: slope.	Slight-----	Moderate: excess salt.
619----- Venadito	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
620*: Aparejo-----	Moderate: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
Venadito-----	Moderate: too clayey, flooding.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: flooding, shrink-swell.	Severe: shrink-swell, low strength, flooding.	Moderate: flooding.
625*: Hagerman-----	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Severe: depth to rock.	Moderate: shrink-swell, depth to rock.	Moderate: depth to rock, shrink-swell.	Moderate: depth to rock.
Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.

See footnote at end of table.

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
630*: Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Rizozo-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: slope, depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Rock outcrop.						
640*: Flaco-----	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: depth to rock.	Moderate: depth to rock, frost action.	Moderate: depth to rock.
Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
641*: Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.
Flaco-----	Severe: depth to rock.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, low strength.	Moderate: small stones, large stones.
645*: Penistaja-----	Slight-----	Slight-----	Slight-----	Slight-----	Moderate: low strength.	Slight.
Oelop-----	Slight-----	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell.	Severe: low strength.	Slight.
650*: Winona-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: small stones, slope.
Tanbark-----	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.
Rock outcrop.						
660*: Rana-----	Moderate: too clayey, slope.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell, slope.	Severe: shrink-swell, low strength.	Severe: large stones, too clayey.
Rock outcrop.						

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
10*. Lava flows					
20----- Penistaja	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
21----- Clovis	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
25*: Hickman-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
Catman-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
30----- Warm Springs	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Fair: small stones, wetness.
40----- Aparejo	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
41----- Aparejo	Severe: flooding, percs slowly.	Severe: seepage, flooding.	Severe: flooding, seepage.	Severe: flooding, seepage.	Poor: thin layer.
45----- Aparejo	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
50, 51----- Venadito	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
52----- Venadito Variant	Severe: flooding, depth to rock, percs slowly.	Severe: depth to rock, flooding.	Severe: flooding, depth to rock, too clayey.	Severe: flooding, depth to rock.	Poor: depth to rock, too clayey, hard to pack.
55*: Glenberg-----	Severe: flooding.	Severe: seepage, flooding.	Severe: flooding.	Severe: flooding.	Fair: too sandy.
San Mateo-----	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Good.
56----- Mespun	Severe: poor filter.	Severe: seepage.	Severe: too sandy.	Slight-----	Poor: too sandy.
57, 58----- San Mateo	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Good.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
60----- Sparank	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Poor: hard to pack.
61----- Sparham	Severe: flooding, wetness, percs slowly.	Severe: flooding.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack.
62----- Sparank	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, excess salt.	Severe: flooding.	Poor: hard to pack.
66----- Zia	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
70----- Catman	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
72----- Catman Variant	Severe: flooding, wetness, percs slowly.	Severe: flooding.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack.
73----- Catman	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
75----- Hickman	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
100----- Manzano	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, seepage.	Severe: flooding.	Fair: too clayey.
120*: Rock outcrop.					
Laporte-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: depth to rock, small stones, slope.
130*: Laporte-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, small stones.
Rock outcrop.					
200----- Penistaja	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
205----- Ildefonso	Moderate: slope.	Severe: seepage, slope.	Moderate: slope, large stones.	Moderate: slope.	Poor: small stones.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
210*: Bond-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Moderate: slope.	Poor: depth to rock.
Penistaja----- Rock outcrop.	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
218*: Viuda-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock, hard to pack.
Penistaja----- Rock outcrop.	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
230*: Dumps. Pits.					
251*: Skyvillage-----	Severe: depth to rock, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.
Rock outcrop. Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
257*: Sparank-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Poor: hard to pack.
San Mateo-----	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Good.
259----- Mikim	Moderate: percs slowly.	Moderate: seepage, slope.	Slight-----	Slight-----	Fair: small stones.
262*: Poley-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Pojoaque-----	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: small stones, slope.
264----- Tapia	Slight-----	Severe: seepage.	Severe: too sandy.	Slight-----	Poor: too sandy, small stones.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
270----- Charo	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
272*: Cebolleta-----	Severe: depth to rock, percs slowly.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Borrego-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
Rock outcrop.					
276----- Trag	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, small stones.
278*: Microy-----	Severe: depth to rock, percs slowly, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope, too clayey.	Severe: depth to rock, slope.	Poor: depth to rock, too clayey, hard to pack.
Rock outcrop.					
282----- Cebolleta	Severe: depth to rock, percs slowly.	Severe: depth to rock, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
284*: Cebolleta-----	Severe: depth to rock, percs slowly, slope.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, slope, too clayey.	Severe: depth to rock, slope.	Poor: depth to rock, too clayey, hard to pack.
Rock outcrop.					
286*: Cebolleta-----	Severe: depth to rock, percs slowly.	Severe: depth to rock, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Raton-----	Severe: depth to rock.	Severe: depth to rock, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
290*: Paguete-----	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock, small stones.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
290*: Hackroy-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
291----- Paguate	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock, small stones.
294*: Parkay-----	Severe: slope.	Severe: slope, large stones.	Severe: slope, large stones.	Severe: slope.	Poor: large stones, slope.
Rock outcrop.					
300----- Saladon	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
310----- Mirabal	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, small stones.
315*: Abersito, cobbly---	Severe: depth to rock, slope, large stones.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, slope, too clayey.	Severe: depth to rock, slope.	Poor: depth to rock, too clayey, large stones.
Abersito-----	Severe: depth to rock, large stones.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, large stones.
Rock outcrop.					
320----- Cinnadale	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock.	Poor: depth to rock, small stones.
325----- Moreno Variant	Severe: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.
330----- Moreno	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
340----- Yankee	Severe: percs slowly.	Slight-----	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
350*: Rock outcrop.					

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
350*: Stout-----	Severe: depth to rock.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock.	Poor: depth to rock.
406*: Poley-----	Severe: percs slowly.	Severe: seepage, slope.	Moderate: slope.	Moderate: slope.	Poor: hard to pack.
Rock outcrop.					
407*: Viuda-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock, hard to pack.
Rock outcrop.					
419----- Navajo	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Good.
420*: Navajo-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Good.
Suwanee-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too sandy.
424*: Mespun-----	Severe: poor filter.	Severe: seepage, slope.	Severe: too sandy.	Slight-----	Poor: too sandy.
Palma-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
426*: Sheppard-----	Severe: poor filter.	Severe: seepage, slope.	Moderate: too sandy.	Slight-----	Fair: too sandy.
Shiprock-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
432*: Winona-----	Severe: depth to rock.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, large stones.	Moderate: slope.	Poor: depth to rock.
Rock outcrop.					
434*: Rizozo-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
434*: Rock outcrop.					
446*: Harvey-----	Moderate: percs slowly.	Moderate: seepage, slope.	Slight-----	Slight-----	Good.
Oelop-----	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
476----- Saïdo	Severe: excess gypsum.	Severe: excess gypsum.	Slight-----	Slight-----	Poor: thin layer.
485*: Rock outcrop.					
Mion-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.
487*: Mion-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, hard to pack, slope.
Badland.					
500*: Timhus-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
Bandera-----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
505*: Flugle-----	Moderate: percs slowly.	Moderate: seepage, slope.	Slight-----	Slight-----	Good.
Goesling-----	Severe: percs slowly.	Moderate: slope.	Slight-----	Slight-----	Good.
514*: Raton-----	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Rock outcrop.					
515*: Rock outcrop.					

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
515*: Vessilla-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, slope.	Poor: depth to rock, slope.
Mion-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, hard to pack, slope.
518*: Borrego-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
Charo-----	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Rock outcrop.					
520*: Celacy-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
522*: Bandera, 30 to 45 percent slopes----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
Bandera, 15 to 30 percent slopes----	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
523*: Charo-----	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Raton-----	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
525*: Catman-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
Silkie-----	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
535----- Millpaw	Severe: percs slowly.	Moderate: seepage, slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
536----- McGaffey	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.
537*: Millpaw-----	Severe: percs slowly.	Moderate: seepage, slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.
Loarc-----	Slight-----	Severe: seepage.	Moderate: too sandy.	Slight-----	Fair: too sandy, small stones.
540----- Montecito	Severe: percs slowly.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: small stones.
550*: Nogal-----	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Galestina-----	Severe: percs slowly.	Moderate: depth to rock, slope.	Severe: depth to rock, too clayey.	Moderate: depth to rock.	Poor: too clayey, hard to pack.
555*: Pinitos-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
Ribera-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
560*: Flugle-----	Moderate: percs slowly.	Moderate: seepage, slope.	Slight-----	Slight-----	Good.
Teco-----	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
561*: Flugle-----	Moderate: percs slowly.	Moderate: seepage, slope.	Slight-----	Slight-----	Good.
Quintana-----	Moderate: percs slowly, slope.	Severe: seepage, slope.	Severe: seepage.	Moderate: slope.	Fair: too clayey, slope.
565----- Quintana	Moderate: percs slowly, slope.	Severe: seepage, slope.	Severe: seepage.	Moderate: slope.	Fair: too clayey, slope.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
570*: Torreon-----	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Rock outcrop.					
Cabazon-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope, too clayey.	Severe: depth to rock, slope.	Poor: depth to rock, too clayey, hard to pack.
575*: Teco-----	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
Atarque-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock.
576----- Teco	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
577*: Cabazon-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Montecito-----	Severe: percs slowly.	Moderate: slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.
Rock outcrop.					
579*: Cabazon-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Cantina-----	Severe: percs slowly.	Moderate: seepage, depth to rock, slope.	Severe: depth to rock.	Moderate: depth to rock.	Poor: thin layer.
581*: Laporte-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Severe: depth to rock.	Poor: depth to rock, small stones.
Vessilla-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock, seepage.	Severe: depth to rock.	Poor: depth to rock.
582----- Kenray	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: too sandy.
585----- Moncha	Severe: percs slowly.	Moderate: slope.	Moderate: too clayey.	Slight-----	Fair: too clayey.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
586*: Venadito-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
Teco-----	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
591*: Valnor-----	Severe: depth to rock, percs slowly.	Severe: depth to rock.	Severe: depth to rock, too clayey.	Severe: depth to rock.	Poor: depth to rock, too clayey, hard to pack.
Techado-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope, too clayey.	Severe: depth to rock, slope.	Poor: depth to rock, too clayey, hard to pack.
610*: Grieta-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
Shiprock-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
611*: Grieta-----	Slight-----	Severe: seepage.	Slight-----	Slight-----	Good.
Kiki-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Moderate: slope.	Poor: depth to rock.
615*: Trag-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: slope.	Poor: slope.
Techado-----	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Severe: depth to rock, slope.	Poor: depth to rock, slope.
Rock outcrop.					
618----- Netoma	Severe: excess gypsum.	Severe: excess gypsum, slope.	Slight-----	Slight-----	Good.
619----- Venadito	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.
620*: Aparejo-----	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Fair: too clayey.
Venadito-----	Severe: flooding, percs slowly.	Severe: flooding.	Severe: flooding, too clayey.	Severe: flooding.	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
625*: Hagerman-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
Bond-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
630*: Bond-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Moderate: slope.	Poor: depth to rock.
Rizozo-----	Severe: depth to rock.	Severe: depth to rock, slope.	Severe: depth to rock.	Moderate: slope.	Poor: depth to rock.
Rock outcrop.					
640*: Flaco-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
641*: Berto-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
Flaco-----	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Slight-----	Poor: depth to rock.
645*: Penistaja-----	Moderate: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
Oelop-----	Severe: percs slowly.	Severe: seepage.	Slight-----	Slight-----	Good.
650*: Winona-----	Severe: depth to rock, slope.	Severe: depth to rock, slope, large stones.	Severe: depth to rock, slope, large stones.	Severe: slope.	Poor: depth to rock, slope.
Tanbark-----	Severe: depth to rock, slope, excess gypsum.	Severe: depth to rock, slope, excess gypsum.	Severe: depth to rock, slope.	Severe: slope.	Poor: depth to rock, slope.
Rock outcrop.					
660*: Rana-----	Severe: percs slowly.	Severe: slope.	Moderate: slope.	Moderate: slope.	Poor: hard to pack.
Rock outcrop.					

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--CONSTRUCTION MATERIALS

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
10*. Lava flows				
20----- Penistaja	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
21----- Clovis	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
25*: Hickman-----	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Catman-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
30----- Warm Springs	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones, excess salt.
40----- Aparejo	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
41----- Aparejo	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, thin layer.
45----- Aparejo	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
50, 51----- Venadito	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
52----- Venadito Variant	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
55*: Glenberg-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy, small stones.
San Mateo-----	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
56----- Mespun	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
57, 58----- San Mateo	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
60----- Sparank	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
61----- Sparham	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, excess salt.
62----- Sparank	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, excess salt, excess sodium.
66----- Zia	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones.
70----- Catman	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
72----- Catman Variant	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, excess salt.
73----- Catman	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
75----- Hickman	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
100----- Manzano	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
120*: Rock outcrop.				
Laporte-----	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
130*: Laporte-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Rock outcrop.				
200----- Penistaja	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
205----- Ildefonso	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
210*: Bond-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Penistaja----- Rock outcrop.	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
218*: Viuda-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, large stones.
Penistaja----- Rock outcrop.	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
230*: Dumps. Pits.				
251*: Skyvillage-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, slope.
Rock outcrop. Bond-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
257*: Sparank-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
San Mateo-----	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
259----- Mikim	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
262*: Poley-----	Fair: shrink-swell, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Pojoaque-----	Fair: large stones, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim, slope.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
264----- Tapia	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, area reclaim.
270----- Charo	Poor: depth to rock, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
272*: Cebolleta-----	Poor: depth to rock, low strength, large stones.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones.
Borrego-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, small stones.
Rock outcrop.				
276----- Trag	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
278*: Microy-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, small stones, slope.
Rock outcrop.				
282----- Cebolleta	Poor: depth to rock, low strength, large stones.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones.
284*: Cebolleta-----	Poor: depth to rock, low strength, large stones.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones, slope.
Rock outcrop.				
286*: Cebolleta-----	Poor: depth to rock, low strength, large stones.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones.
Raton-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: depth to rock, large stones.
290*: Paguete-----	Poor: depth to rock, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
290*: Hackroy-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey.
291----- Paguate	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
294*: Parkay-----	Poor: slope.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: area reclaim, small stones, slope.
Rock outcrop.				
300----- Saladon	Poor: shrink-swell, low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, wetness.
310----- Mirabal	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
315*: Abersito, cobbly-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones, slope.
Abersito-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: too clayey, large stones.
Rock outcrop.				
320----- Cinnadale	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
325----- Moreno Variant	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
330----- Moreno	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, small stones, area reclaim.
340----- Yankee	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
350*: Rock outcrop.				
Stout-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
406*: Poley-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, area reclaim.
Rock outcrop.				
407*: Viuda-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, large stones.
Rock outcrop.				
419----- Navajo	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, excess sodium.
420*: Navajo-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, excess sodium.
Suwanee-----	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
424*: Mespun-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
Palma-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Good.
426*: Sheppard-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too sandy.
Shiprock-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Good.
432*: Winona-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, large stones.
Rock outcrop.				
434*: Rizozo-----	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, slope.
Rock outcrop.				
446*: Harvey-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, area reclaim.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
446*: Oelop-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
476----- Saïdo	Poor: thin layer.	Improbable: excess fines.	Improbable: excess fines.	Poor: thin layer.
485*: Rock outcrop.				
Mion-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, slope.
487*: Mion-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, slope.
Badland.				
500*: Timhus-----	Poor: slope.	Improbable: small stones.	Probable-----	Poor: small stones, area reclaim, slope.
Bandera-----	Poor: slope.	Improbable: small stones.	Probable-----	Poor: small stones, area reclaim, slope.
505*: Flugle-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Goesling-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
514*: Raton-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: depth to rock, too clayey, large stones.
Rock outcrop.				
515*: Rock outcrop.				
Vessilla-----	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, slope.
Mion-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, slope.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
518*: Borrego-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey.
Charo-----	Poor: depth to rock, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Rock outcrop.				
520*: Celacy-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, too clayey, small stones.
Atarque-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock.
522*: Bandera, 30 to 45 percent slopes-----	Poor: slope.	Improbable: small stones.	Probable-----	Poor: small stones, area reclaim, slope.
Bandera, 15 to 30 percent slopes-----	Fair: slope.	Improbable: small stones.	Probable-----	Poor: small stones, area reclaim, slope.
523*: Charo-----	Poor: depth to rock, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, large stones.
Raton-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: depth to rock, large stones.
525*: Catman-----	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Silkie-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
535----- Millpaw	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
536----- McGaffey	Fair: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
537*: Millpaw-----	Fair: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Loarc-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones, area reclaim.
540----- Montecito	Good-----	Improbable: small stones.	Probable-----	Poor: too clayey, small stones, area reclaim.
550*: Nogal-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, small stones.
Galestina-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
555*: Pinitos-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
Ribera-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, too clayey, thin layer.
560*: Flugle-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Teco-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
561*: Flugle-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones.
Quintana-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, slope.
565----- Quintana	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, slope.
570*: Torreon-----	Poor: low strength, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, slope.
Rock outcrop.				

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
570*: Cabezon-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, large stones.
575*: Teco-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Atarque-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock.
576----- Teco	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
577*: Cabezon-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, large stones.
Montecito-----	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey, small stones, thin layer.
Rock outcrop.				
579*: Cabezon-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, large stones.
Cantina-----	Poor: thin layer.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
581*: Laporte-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Vessilla-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock.
582----- Kenray	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
585----- Moncha	Fair: low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Good.
586*: Venadito-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Teco-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
591*: Valnor-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Techado-----	Poor: depth to rock, low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones, slope.
610*: Grieta-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones.
Shiprock-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Good.
611*: Grieta-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones.
Kiki-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, too clayey, small stones.
615*: Trag-----	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones, area reclaim, slope.
Techado-----	Poor: depth to rock, shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, too clayey, small stones.
Rock outcrop.				
618----- Netoma	Good-----	Improbable: excess fines.	Improbable: excess fines.	Poor: thin layer.
619----- Venadito	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
620*: Aparejo-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
Venadito-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
625*: Hagerman-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, too clayey, small stones.

See footnote at end of table.

TABLE 10.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
625*: Bond-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
630*: Bond-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Rizozo-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Rock outcrop.				
640*: Flaco-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
Berto-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
641*: Berto-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, small stones.
Flaco-----	Poor: depth to rock.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
645*: Penistaja-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
Oelop-----	Good-----	Improbable: excess fines.	Improbable: excess fines.	Fair: too clayey.
650*: Winona-----	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, large stones, slope.
Tanbark-----	Poor: depth to rock, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: depth to rock, slope.
Rock outcrop.				
660*: Rana-----	Poor: shrink-swell, low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
Rock outcrop.				

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 11.--WATER MANAGEMENT

(Some terms that describe restrictive soil features are defined in the "Glossary." See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
10*. Lava flows					
20----- Penistaja	Severe: seepage.	Severe: piping.	Deep to water----	Favorable-----	Favorable.
21----- Clovis	Severe: seepage.	Severe: piping.	Deep to water----	Favorable-----	Erodes easily.
25*: Hickman-----	Moderate: slope.	Moderate: piping.	Deep to water----	Slope, flooding.	Erodes easily.
Catman-----	Slight-----	Severe: hard to pack.	Deep to water----	Percs slowly----	Percs slowly.
30----- Warm Springs	Moderate: seepage.	Severe: piping.	Flooding, frost action.	Wetness, droughty, erodes easily.	Erodes easily, wetness.
40----- Aparejo	Moderate: seepage.	Severe: piping.	Deep to water----	Flooding-----	Erodes easily.
41----- Aparejo	Severe: seepage.	Moderate: thin layer, piping.	Deep to water----	Flooding-----	Favorable.
45----- Aparejo	Moderate: seepage.	Severe: piping.	Deep to water----	Slow intake, flooding.	Erodes easily.
50, 51----- Venadito	Slight-----	Moderate: hard to pack.	Deep to water----	Percs slowly----	Percs slowly.
52----- Venadito Variant	Moderate: depth to rock.	Moderate: thin layer, hard to pack.	Deep to water----	Percs slowly, depth to rock, flooding.	Depth to rock, percs slowly.
55*: Glenberg-----	Severe: seepage.	Severe: piping.	Deep to water----	Droughty, soil blowing, flooding.	Too sandy, soil blowing.
San Mateo-----	Moderate: seepage.	Moderate: piping.	Deep to water----	Flooding-----	Favorable.
56----- Mespun	Severe: seepage.	Severe: seepage, piping.	Deep to water----	Slope, droughty, fast intake.	Too sandy, soil blowing.
57, 58----- San Mateo	Moderate: seepage.	Moderate: piping.	Deep to water----	Flooding-----	Favorable.
60----- Sparank	Slight-----	Moderate: hard to pack.	Deep to water----	Percs slowly----	Erodes easily, percs slowly.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
61----- Sparham	Slight-----	Moderate: hard to pack, wetness, excess salt.	Deep to water----	Peres slowly, flooding, excess salt.	Peres slowly.
62----- Sparank	Slight-----	Severe: excess sodium, excess salt.	Deep to water----	Droughty-----	Erodes easily, peres slowly.
66----- Zia	Severe: seepage.	Slight-----	Deep to water----	Slope, soil blowing.	Favorable.
70----- Catman	Slight-----	Severe: hard to pack.	Deep to water----	Peres slowly----	Peres slowly.
72----- Catman Variant	Slight-----	Severe: hard to pack.	Peres slowly, flooding, frost action.	Wetness, droughty, peres slowly.	Wetness, peres slowly.
73----- Catman	Slight-----	Severe: hard to pack.	Deep to water----	Peres slowly----	Peres slowly.
75----- Hickman	Slight-----	Moderate: piping.	Deep to water----	Flooding-----	Favorable.
100----- Manzano	Moderate: slope.	Moderate: thin layer, piping.	Deep to water----	Slope, flooding.	Erodes easily.
120*: Rock outcrop.					
Laporte-----	Severe: depth to rock, slope.	Severe: piping.	Deep to water----	Slope, large stones, depth to rock.	Slope, large stones, depth to rock.
130*: Laporte-----	Severe: depth to rock, slope.	Severe: piping.	Deep to water----	Slope, depth to rock.	Slope, large stones, depth to rock.
Rock outcrop.					
200----- Penistaja	Severe: seepage.	Severe: piping.	Deep to water----	Slope-----	Favorable.
205----- Ildefonso	Severe: seepage, slope.	Moderate: large stones.	Deep to water----	Slope, droughty.	Slope, large stones.
210*: Bond-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Slope, depth to rock, soil blowing.
Penistaja-----	Severe: seepage.	Severe: piping.	Deep to water----	Slope-----	Favorable.
Rock outcrop.					

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
218*: Viuda-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Large stones, depth to rock.
Penistaja-----	Severe: seepage.	Severe: piping.	Deep to water----	Slope-----	Favorable.
Rock outcrop.					
230*: Dumps.					
Pits.					
251*: Skyvillage-----	Severe: depth to rock, slope.	Severe: piping.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock.
Rock outcrop.					
Bond-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Depth to rock, soil blowing.
257*: Sparank-----	Slight-----	Moderate: hard to pack.	Deep to water----	Percs slowly----	Erodes easily, percs slowly.
San Mateo-----	Moderate: seepage, slope.	Moderate: piping.	Deep to water----	Slope, erodes easily, flooding.	Erodes easily.
259----- Mikim	Moderate: seepage, slope.	Severe: piping.	Deep to water----	Slope-----	Favorable.
262*: Poley-----	Severe: slope.	Severe: piping.	Deep to water----	Slope, percs slowly.	Slope, erodes easily.
Pojoaque-----	Severe: slope.	Moderate: large stones.	Deep to water----	Slope, large stones.	Slope, large stones.
264----- Tapia	Severe: seepage.	Severe: seepage.	Deep to water----	Slope, soil blowing.	Large stones, too sandy, soil blowing.
270----- Charo	Moderate: depth to rock.	Severe: thin layer.	Deep to water----	Percs slowly, depth to rock.	Depth to rock, percs slowly.
272*: Cebolleta-----	Severe: slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Borrego-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Slope, depth to rock.
Rock outcrop.					

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
276----- Trag	Moderate: seepage, slope.	Severe: piping.	Deep to water----	Slope-----	Favorable.
278*: Microy-----	Severe: slope.	Moderate: thin layer, hard to pack, large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Rock outcrop.					
282----- Cebolleta	Moderate: depth to rock, slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
284*: Cebolleta-----	Severe: slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Rock outcrop.					
286*: Cebolleta-----	Moderate: depth to rock, slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
Raton-----	Severe: depth to rock.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
290*: Paguate-----	Moderate: depth to rock, slope.	Moderate: thin layer, piping, large stones.	Deep to water----	Slope, percs slowly, depth to rock.	Large stones, depth to rock, erodes easily.
Hackroy-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, percs slowly.	Depth to rock, percs slowly.
291----- Paguate	Moderate: depth to rock, slope.	Moderate: thin layer, piping, large stones.	Deep to water----	Slope, percs slowly, depth to rock.	Large stones, depth to rock.
294*: Parkay-----	Severe: slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones.
Rock outcrop.					
300----- Saladon	Slight-----	Severe: wetness.	Percs slowly----	Wetness-----	Wetness, percs slowly.
310----- Mirabal	Severe: slope.	Severe: thin layer.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
315*: Abersito, cobbly-	Severe: slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Abersito-----	Moderate: depth to rock, slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
Rock outcrop.					
320----- Cinnadale	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, droughty, depth to rock.	Slope, large stones, depth to rock.
325----- Moreno Variant	Moderate: seepage, slope.	Slight-----	Deep to water----	Slope, erodes easily.	Erodes easily.
330----- Moreno	Moderate: slope.	Moderate: hard to pack.	Deep to water----	Slope, percs slowly.	Erodes easily, percs slowly.
340----- Yankee	Slight-----	Moderate: hard to pack.	Deep to water----	Percs slowly, erodes easily.	Erodes easily, percs slowly.
350*: Rock outcrop.					
Stout-----	Severe: depth to rock, slope.	Severe: piping.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock, soil blowing.
406*: Poley-----	Severe: seepage, slope.	Moderate: thin layer, hard to pack.	Deep to water----	Slope, percs slowly.	Slope, percs slowly.
Rock outcrop.					
407*: Viuda-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Large stones, depth to rock.
Rock outcrop.					
419----- Navajo	Moderate: slope.	Severe: excess sodium.	Deep to water----	Slope, percs slowly, erodes easily.	Erodes easily, percs slowly.
420*: Navajo-----	Moderate: slope.	Severe: excess sodium.	Deep to water----	Slope, percs slowly.	Percs slowly.
Suwanee-----	Moderate: slope.	Moderate: piping.	Deep to water----	Slope, erodes easily, flooding.	Erodes easily.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
424*: Mespun-----	Severe: seepage.	Severe: seepage, piping.	Deep to water----	Slope, droughty, fast intake.	Too sandy, soil blowing.
Palma-----	Severe: seepage.	Severe: piping.	Deep to water----	Slope, fast intake, soil blowing.	Soil blowing.
426*: Sheppard-----	Severe: seepage.	Severe: seepage, piping.	Deep to water----	Droughty, fast intake, soil blowing.	Too sandy, soil blowing.
Shiprock-----	Severe: seepage.	Slight-----	Deep to water----	Slope, droughty.	Soil blowing.
432*: Winona-----	Severe: depth to rock, slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Rock outcrop.					
434*: Rizozo-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock, soil blowing.
Rock outcrop.					
446*: Harvey-----	Moderate: seepage, slope.	Moderate: piping.	Deep to water----	Slope-----	Erodes easily.
Oelop-----	Severe: seepage.	Moderate: piping.	Deep to water----	Favorable-----	Erodes easily.
476----- Saïdo	Severe: excess gypsum, seepage.	Severe: excess gypsum, thin layer.	Deep to water----	Excess gypsum, slope, erodes easily.	Excess gypsum, erodes easily.
485*: Rock outcrop.					
Mion-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Slope, depth to rock, percs slowly.
487*: Mion-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Slope, depth to rock, erodes easily.
Badland.					
500*: Timhus-----	Severe: seepage, slope.	Severe: seepage.	Deep to water----	Slope, droughty.	Slope.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
500*: Bandera-----	Severe: seepage, slope.	Severe: seepage.	Deep to water----	Slope, droughty.	Slope.
505*: Flugle-----	Moderate: seepage, slope.	Slight-----	Deep to water----	Slope, fast intake.	Erodes easily, soil blowing.
Goesling-----	Moderate: slope.	Slight-----	Deep to water----	Slope, fast intake, soil blowing.	Soil blowing.
514*: Raton-----	Severe: depth to rock.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
Rock outcrop.					
515*: Rock outcrop.					
Vessilla-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock, soil blowing.
Mion-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Slope, depth to rock, erodes easily.
518*: Borrego-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Depth to rock, erodes easily.
Charo-----	Moderate: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Depth to rock, percs slowly.
Rock outcrop.					
520*: Celacy-----	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Depth to rock, erodes easily.
Atarque-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Depth to rock, soil blowing.
522*: Bandera, 30 to 45 percent slopes--	Severe: seepage, slope.	Severe: seepage.	Deep to water----	Slope, droughty.	Slope.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
522*: Bandera, 15 to 30 percent slopes--	Severe: seepage, slope.	Severe: seepage.	Deep to water----	Slope, droughty.	Slope.
523*: Charo-----	Moderate: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Large stones, depth to rock, percs slowly.
Raton-----	Severe: depth to rock.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Large stones, depth to rock.
525*: Catman-----	Moderate: slope.	Severe: hard to pack.	Deep to water----	Slope, percs slowly.	Percs slowly.
Silkie-----	Moderate: slope.	Moderate: hard to pack.	Deep to water----	Slope, percs slowly.	Percs slowly.
535----- Millpaw	Moderate: seepage.	Moderate: hard to pack.	Deep to water----	Percs slowly, erodes easily.	Erodes easily, percs slowly.
536----- McGaffey	Moderate: seepage, slope.	Moderate: piping.	Deep to water----	Slope, erodes easily.	Erodes easily.
537*: Millpaw-----	Moderate: seepage.	Moderate: hard to pack.	Deep to water----	Percs slowly, erodes easily.	Erodes easily, percs slowly.
Loarc-----	Severe: seepage.	Slight-----	Deep to water----	Slope, soil blowing.	Too sandy, soil blowing.
540----- Montecito	Severe: seepage, slope.	Moderate: thin layer, large stones.	Deep to water----	Slope, soil blowing.	Slope, large stones.
550*: Nogal-----	Moderate: depth to rock, slope.	Moderate: thin layer, hard to pack.	Deep to water----	Slope, soil blowing, percs slowly.	Depth to rock, soil blowing.
Galestina-----	Moderate: depth to rock, slope.	Moderate: thin layer, hard to pack.	Deep to water----	Slope, soil blowing, percs slowly.	Erodes easily, soil blowing, percs slowly.
555*: Pinitos-----	Severe: seepage.	Slight-----	Deep to water----	Slope, soil blowing.	Favorable.
Ribera-----	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Depth to rock.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
560*: Flugle-----	Moderate: seepage, slope.	Slight-----	Deep to water----	Slope, fast intake.	Erodes easily, soil blowing.
Teco-----	Severe: seepage.	Slight-----	Deep to water----	Soil blowing----	Erodes easily, soil blowing.
561*: Flugle-----	Moderate: seepage, slope.	Slight-----	Deep to water----	Slope-----	Erodes easily, soil blowing.
Quintana-----	Severe: seepage, slope.	Moderate: thin layer, piping.	Deep to water----	Slope, soil blowing.	Slope, soil blowing.
565----- Quintana	Severe: seepage, slope.	Moderate: thin layer, piping.	Deep to water----	Slope, soil blowing.	Slope, soil blowing.
570*: Torreon-----	Severe: slope.	Moderate: piping.	Deep to water----	Slope, percs slowly.	Slope, erodes easily.
Rock outcrop.					
Cabazon-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, large stones, percs slowly.	Slope, large stones, depth to rock.
575*: Teco-----	Severe: seepage.	Slight-----	Deep to water----	Soil blowing----	Erodes easily, soil blowing.
Atarque-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Depth to rock, soil blowing.
576----- Teco	Severe: seepage.	Slight-----	Deep to water----	Slope, soil blowing.	Erodes easily, soil blowing.
577*: Cabazon-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, large stones, percs slowly.	Large stones, depth to rock.
Montecito-----	Moderate: slope.	Slight-----	Deep to water----	Slope-----	Favorable.
Rock outcrop.					
579*: Cabazon-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, large stones, percs slowly.	Large stones, depth to rock.
Cantina-----	Moderate: seepage, depth to rock.	Moderate: thin layer, piping.	Deep to water----	Soil blowing, percs slowly.	Soil blowing.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
581*: Laporte-----	Severe: depth to rock, slope.	Severe: piping.	Deep to water----	Slope, depth to rock.	Slope, large stones, depth to rock.
Vessilla-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock, soil blowing.
582----- Kenray	Severe: seepage, slope.	Severe: seepage, piping.	Deep to water----	Slope, droughty, fast intake.	Slope, too sandy, soil blowing.
585----- Moncha	Moderate: slope.	Severe: piping.	Deep to water----	Slope, erodes easily.	Erodes easily.
586*: Venadito-----	Slight-----	Moderate: hard to pack.	Deep to water----	Percs slowly----	Percs slowly.
Teco-----	Severe: seepage.	Slight-----	Deep to water----	Slope-----	Erodes easily.
591*: Valnor-----	Moderate: depth to rock, slope.	Moderate: thin layer, hard to pack.	Deep to water----	Slope, percs slowly.	Depth to rock, erodes easily.
Techado-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Percs slowly, depth to rock, slope.	Slope, depth to rock, percs slowly.
610*: Grieta-----	Severe: seepage.	Severe: piping.	Deep to water----	Slope, soil blowing.	Soil blowing.
Shiprock-----	Severe: seepage.	Slight-----	Deep to water----	Slope, droughty.	Soil blowing.
611*: Grieta-----	Severe: seepage.	Severe: piping.	Deep to water----	Slope, soil blowing.	Soil blowing.
Kiki-----	Severe: slope.	Severe: piping.	Deep to water----	Slope, soil blowing, depth to rock.	Slope, depth to rock, soil blowing.
615*: Trag-----	Severe: seepage, slope.	Severe: piping.	Deep to water----	Slope-----	Slope, large stones.
Techado-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, percs slowly, depth to rock.	Slope, depth to rock, percs slowly.
Rock outcrop.					
618----- Netoma	Severe: excess gypsum, seepage.	Severe: excess gypsum, piping.	Deep to water----	Excess gypsum, slope, erodes easily.	Excess gypsum, erodes easily.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
619----- Venadito	Moderate: slope.	Moderate: hard to pack.	Deep to water----	Slope, percs slowly.	Percs slowly.
620*: Aparejo-----	Moderate: seepage, slope.	Severe: piping.	Deep to water----	Slope, flooding.	Erodes easily.
Venadito-----	Moderate: slope.	Moderate: hard to pack.	Deep to water----	Slope, percs slowly, erodes easily.	Erodes easily, percs slowly.
625*: Hagerman-----	Moderate: seepage, depth to rock, slope.	Moderate: thin layer, piping.	Deep to water----	Slope, soil blowing, depth to rock.	Depth to rock.
Bond-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Depth to rock, soil blowing.
630*: Bond-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Slope, depth to rock, soil blowing.
Rizozo-----	Severe: depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, depth to rock, erodes easily.	Slope, depth to rock, erodes easily.
Rock outcrop.					
640*: Flaco-----	Moderate: seepage, depth to rock.	Severe: piping.	Deep to water----	Depth to rock----	Depth to rock, erodes easily.
Berto-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, depth to rock, erodes easily.	Depth to rock, erodes easily.
641*: Berto-----	Severe: depth to rock.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Depth to rock, erodes easily.
Flaco-----	Moderate: seepage, depth to rock, slope.	Severe: thin layer.	Deep to water----	Slope, depth to rock.	Large stones, depth to rock.
645*: Penistaja-----	Severe: seepage.	Severe: piping.	Deep to water----	Favorable-----	Favorable.
Oelop-----	Severe: seepage.	Moderate: piping.	Deep to water----	Favorable-----	Erodes easily.

See footnote at end of table.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions
650*: Winona-----	Severe: depth to rock, slope.	Severe: large stones.	Deep to water----	Slope, large stones, droughty.	Slope, large stones, depth to rock.
Tanbark-----	Severe: depth to rock, slope, seepage.	Severe: thin layer, excess gypsum.	Deep to water----	Depth to rock, slope, excess gypsum.	Slope, depth to rock, erodes easily.
Rock outcrop.					
660*: Rana-----	Severe: slope.	Severe: hard to pack.	Deep to water----	Slope, slow intake, percs slowly.	Slope, percs slowly.
Rock outcrop.					

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--ENGINEERING INDEX PROPERTIES

(The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated)

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
10*. Lava flows											
20----- Penistaja	0-6	Fine sandy loam	SC-SM, CL-ML	A-4	0	100	100	90-100	40-60	20-30	5-10
	6-60	Sandy clay loam, clay loam.	CL, SC	A-6	0	100	100	95-100	45-75	30-35	10-15
21----- Clovis	0-8	Sandy clay loam	CL-ML	A-4	0	100	100	90-100	65-85	25-30	5-10
	8-60	Sandy clay loam, clay loam, loam.	CL	A-6	0	100	100	90-100	50-85	30-40	10-20
25*: Hickman-----	0-4	Loam-----	CL-ML, CL	A-4, A-6	0	80-100	75-100	60-75	50-65	25-35	5-15
	4-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	80-100	75-100	60-75	50-65	25-40	10-20
Catman-----	0-12	Silty clay loam	CL	A-6, A-7	0	100	100	90-100	80-90	35-45	15-20
	12-60	Clay-----	CH	A-7	0	100	100	90-100	80-90	60-70	30-40
30----- Warm Springs	0-8	Loam-----	ML	A-4	0	100	100	60-80	50-65	15-25	NP-5
	8-36	Gravelly sandy loam, loam.	SC-SM, CL-ML	A-4	0	80-100	70-100	60-80	45-60	25-30	5-10
	36-60	Sandy loam, loam	SC-SM, CL-ML	A-4	0	90-100	85-100	60-80	45-60	25-30	5-10
40----- Aparejo	0-6	Clay loam-----	CL	A-6, A-7	0	100	100	90-100	80-90	35-45	15-20
	6-47	Silty clay loam, silt loam, clay loam.	CL	A-6	0	100	100	90-100	80-90	25-40	10-20
	47-60	Silt loam, sandy clay loam, clay loam.	CL	A-6	0	100	100	85-100	65-85	25-35	10-15
41----- Aparejo	0-6	Clay loam-----	CL	A-6	0	100	100	80-95	75-85	35-40	15-20
	6-42	Clay loam, sandy clay loam.	CL	A-6	0	100	100	70-85	65-75	30-40	15-20
	42-60	Stratified fine sand to clay loam.	SM, SC-SM, SC	A-2, A-4, A-6	0	100	100	60-80	30-50	15-40	NP-15
45----- Aparejo	0-15	Clay-----	CL, CH	A-7	0	100	100	85-100	80-95	45-55	20-30
	15-38	Sandy clay loam, clay loam.	CL	A-6	0	100	100	90-100	80-90	25-40	10-20
	38-60	Sandy clay loam, fine sandy loam.	CL	A-6	0	100	100	85-100	65-85	25-35	10-15
50----- Venadito	0-14	Clay loam-----	CL	A-6, A-7	0	100	100	85-95	75-85	35-45	15-20
	14-60	Clay-----	CH	A-7	0	100	100	95-100	85-95	55-65	30-40
51----- Venadito	0-19	Sandy clay loam, clay loam.	SC, CL	A-6	0	100	100	60-75	45-60	30-40	10-15
	19-60	Clay-----	CH	A-7	0	100	100	95-100	85-95	55-65	30-40

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
52----- Venadito Variant	0-3	Clay loam-----	CL	A-6	0	100	100	85-95	75-85	30-35	10-15
	3-35	Clay-----	CH	A-7	0	100	100	95-100	85-95	50-60	30-40
	35-39	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
55*: Glenberg-----	0-11	Sandy loam-----	SM	A-4	0	95-100	85-100	60-70	35-45	15-20	NP-5
	11-21	Sandy loam-----	SM	A-4	0	95-100	85-100	60-70	35-45	15-20	NP-5
	21-60	Stratified loamy sand to loam.	SM	A-2, A-4	0	90-100	75-90	50-80	25-40	15-20	NP-5
San Mateo-----	0-4	Sandy clay loam	SC, CL	A-6	0	100	100	55-75	35-55	30-35	10-15
	4-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	85-100	75-90	60-75	50-65	30-40	10-20
56----- Mespun	0-2	Loamy sand-----	SM	A-2	0	100	100	60-80	20-35	---	NP
	2-60	Fine sand, loamy fine sand, loamy sand.	SM	A-2	0	100	100	70-90	15-35	---	NP
57----- San Mateo	0-6	Clay loam-----	CL	A-6	0	100	100	80-90	60-70	35-40	15-20
	6-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	85-100	75-90	60-75	50-65	30-40	10-20
58----- San Mateo	0-4	Sandy clay loam	SC, CL	A-6	0	100	100	55-75	35-55	30-35	10-15
	4-47	Loam, sandy clay loam.	SC, CL	A-6	0	85-100	75-90	60-75	45-65	30-40	10-20
	47-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	85-100	75-90	60-75	50-65	30-40	10-20
60----- Sparank	0-10	Clay loam-----	CL	A-6, A-7	0	95-100	90-100	80-95	70-90	35-45	15-20
	10-60	Clay, silty clay, silty clay loam.	CL, CH	A-7	0	95-100	90-100	80-95	70-90	40-55	15-30
61----- Sparham	0-10	Clay loam-----	CL	A-6, A-7	0	100	100	80-100	75-90	35-45	15-20
	10-60	Silty clay, clay	CL, CH	A-7	0	100	100	90-100	80-95	45-60	20-30
62----- Sparank	0-5	Sandy clay loam	SC	A-2, A-6	0	95-100	90-100	50-70	30-40	30-40	15-20
	5-60	Clay, silty clay, silty clay loam.	CL, CH	A-7	0	95-100	90-100	80-95	70-90	40-55	20-30
66----- Zia	0-8	Fine sandy loam	SC-SM	A-2, A-4	0	80-100	75-100	55-70	25-40	20-30	5-10
	8-60	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	80-100	75-100	60-75	25-45	20-30	5-10
70----- Catman	0-6	Clay loam-----	CL	A-6, A-7	0	100	100	65-95	50-80	30-45	10-20
	6-60	Clay-----	CH	A-7	0	100	100	90-100	80-90	60-70	30-40
72----- Catman Variant	0-10	Clay loam-----	CL	A-6, A-7	0	100	100	80-95	65-80	35-45	15-20
	10-60	Clay-----	CH	A-7	0	100	100	90-100	80-90	60-70	30-40
73----- Catman	0-10	Sandy clay loam	CL	A-6, A-7	0	100	100	65-95	50-80	30-45	10-20
	10-60	Clay-----	CH	A-7	0	100	100	90-100	80-90	60-70	30-40
75----- Hickman	0-6	Sandy clay loam	CL	A-6	0	80-100	75-100	70-85	50-80	30-40	15-20
	6-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	80-100	75-100	60-75	50-65	25-40	10-20

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
100----- Manzano	0-4 4-60	Loam----- Loam, clay loam, silt loam.	CL-ML CL	A-4 A-6	0 0	90-100 80-100	90-100 75-100	85-100 70-100	60-80 50-85	20-30 25-40	5-10 10-20
120*: Rock outcrop.											
Laporte-----	0-2 2-11 11-15	Very cobbly loam Gravelly loam, cobbly loam. Unweathered bedrock.	SC-SM, GM-GC, GC, SC CL-ML, SC-SM, CL, SC ---	A-4, A-6 A-4, A-6 ---	30-45 10-25 ---	60-75 70-90 ---	55-70 65-85 ---	40-60 50-70 ---	35-50 45-60 ---	25-35 25-35 ---	5-15 5-15 ---
130*: Laporte-----	0-3 3-11 11-15	Gravelly loam--- Gravelly loam, cobbly loam. Unweathered bedrock.	CL-ML, ML, GM, GM-GC CL-ML, SC-SM, CL, SC ---	A-4 A-4, A-6 ---	0-15 10-25 ---	60-90 70-90 ---	60-75 65-85 ---	45-60 50-70 ---	40-55 45-60 ---	20-30 25-35 ---	NP-10 5-15 ---
Rock outcrop.											
200----- Penistaja	0-2 2-22 22-60	Fine sandy loam Sandy clay loam, clay loam. Sandy loam, fine sandy loam, sandy clay loam.	SC-SM, CL-ML CL, SC SC, SC-SM, CL, CL-ML	A-4 A-6 A-2, A-4, A-6	0 0 0	100 100 100	100 100 100	90-100 95-100 70-95	40-60 45-75 30-55	20-30 30-35 20-30	5-10 10-15 5-15
205----- Ildefonso	0-3 3-60	Very gravelly sandy loam. Very gravelly loam, very gravelly sandy loam.	GM-GC GM-GC	A-2 A-2, A-4	0-25 10-25	40-55 40-60	35-50 35-55	25-35 25-50	10-20 10-40	15-25 15-25	5-10 5-10
210*: Bond-----	0-7 7-16 16-20	Sandy loam----- Sandy clay loam, clay loam, loam. Unweathered bedrock.	SM SC, CL ---	A-2, A-4 A-2, A-6 ---	0-15 0-15 ---	100 80-100 ---	95-100 70-100 ---	60-75 60-75 ---	30-50 30-60 ---	15-25 20-35 ---	NP-5 10-20 ---
Penistaja-----	0-3 3-30 30-60	Sandy loam----- Sandy clay loam, clay loam. Sandy loam, fine sandy loam, sandy clay loam.	SC-SM, CL-ML CL, SC SC, SC-SM, CL, CL-ML	A-4 A-6 A-2, A-4, A-6	0 0 0	100 100 100	100 100 100	90-100 95-100 70-95	40-60 45-75 30-55	20-30 30-35 20-30	5-10 10-15 5-15
Rock outcrop.											

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct						
218*: Viuda-----	0-3	Very cobbly sandy loam.	GM-GC, SC-SM	A-2	30-50	50-75	45-70	40-55	15-30	20-30	5-10
	3-16	Clay, sandy clay loam.	CL, CH	A-7	0-10	95-100	90-100	55-75	50-65	40-55	20-30
	16-19	Cobbly clay loam, sandy clay loam, clay loam.	CL	A-6	10-25	95-100	90-100	60-75	50-60	30-40	10-20
	19-23	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Penistaja-----	0-2	Sandy loam-----	SC-SM, CL-ML	A-4	0	100	100	90-100	40-60	20-30	5-10
	2-24	Sandy clay loam, clay loam.	CL, SC	A-6	0	100	100	95-100	45-75	30-35	10-15
	24-60	Sandy loam, fine sandy loam, sandy clay loam.	SC, SC-SM, CL, CL-ML	A-2, A-4, A-6	0	100	100	70-95	30-55	20-30	5-15
Rock outcrop.											
230*: Dumps.											
Pits.											
251*: Skyvillage-----	0-4	Sandy loam-----	SC-SM	A-4	0-10	95-100	85-100	60-80	35-50	20-25	5-10
	4-12	Fine sandy loam, sandy loam, loam.	SC-SM, CL-ML	A-4	0-10	95-100	85-100	60-85	35-65	20-30	5-10
	12-16	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
Bond-----	0-4	Sandy loam-----	SM	A-2, A-4	0-15	100	95-100	60-75	30-50	15-25	NP-5
	4-10	Sandy clay loam, clay loam, loam.	SC, CL	A-2, A-6	0-15	80-100	80-100	60-75	30-60	20-35	10-20
	10-14	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
257*: Sparank-----	0-2	Clay loam-----	CL	A-6, A-7	0	95-100	90-100	80-95	70-90	35-45	15-20
	2-60	Clay, silty clay, silty clay loam.	CL, CH	A-7	0	95-100	90-100	80-95	70-90	40-55	15-30
San Mateo-----	0-2	Loam-----	CL-ML, CL	A-4, A-6	0	100	100	80-95	60-75	20-30	5-15
	2-29	Loam, sandy clay loam.	SC, CL	A-6	0	85-100	75-90	60-75	45-65	30-40	10-20
	29-60	Stratified sandy loam to silty clay loam.	CL	A-6	0	85-100	75-90	60-75	50-65	30-40	10-20
259----- Mikim	0-4	Loam-----	ML, CL-ML	A-4	0-5	85-100	75-100	65-95	50-75	20-30	NP-10
	4-60	Sandy clay loam, clay loam.	CL-ML, CL	A-4, A-6	0-5	85-100	75-100	65-95	50-75	25-40	5-15

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
262*: Poley-----	0-2	Very cobbly loam	GM-GC	A-2, A-4	25-40	50-70	40-65	30-60	25-50	20-25	5-10
	2-18	Clay, clay loam, gravelly clay loam.	SC, CL, GC	A-6, A-7	0-15	70-100	60-100	50-90	40-80	30-45	15-30
	18-60	Loam-----	CL-ML	A-4	0-10	90-100	85-100	70-80	60-70	20-25	5-10
Pojoaque-----	0-3	Very cobbly loam	GM-GC, SC-SM	A-2, A-4	30-50	50-75	45-70	40-55	25-40	20-30	5-10
	3-60	Gravelly clay loam, gravelly sandy clay loam, cobbly clay loam.	SC-SM	A-2, A-4	10-25	70-90	65-85	55-65	30-50	25-30	5-10
264----- Tapia	0-4	Sandy loam-----	SC-SM	A-2, A-4	0-10	90-100	90-100	60-80	30-45	20-25	5-10
	4-23	Clay loam, sandy clay loam.	CL	A-6	0-10	90-100	85-100	75-90	55-75	30-40	10-20
	23-40	Cobbly sandy loam, very cobbly sandy clay loam, very cobbly sandy loam.	SC-SM, GM-GC	A-2	15-40	55-85	50-80	45-60	20-35	25-30	5-10
	40-60	Cobbly sand-----	SM	A-1, A-2	15-25	70-95	65-90	40-55	10-20	---	NP
270----- Charo	0-5	Loam-----	CL	A-6	0-15	95-100	90-100	75-90	65-80	30-35	10-15
	5-28	Clay loam, clay	CL, CH	A-7	0-15	95-100	90-100	85-95	75-85	40-60	20-30
	28-32	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
272*: Cebolleta-----	0-2	Cobbly loam-----	CL-ML	A-4	30-40	85-95	80-90	70-85	60-75	20-25	5-10
	2-8	Very cobbly loam, very cobbly clay loam.	CL	A-6	45-55	75-90	70-85	60-75	50-65	25-35	10-20
	8-25	Very cobbly clay	SC, GC, CL, CH	A-7	40-55	55-85	50-80	45-70	40-60	45-60	20-30
	25-29	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Borrego-----	0-4	Gravelly loam----	SC, GC	A-6	5-15	65-80	60-75	55-65	40-50	25-35	10-15
	4-18	Gravelly clay, clay, gravelly clay loam.	CL	A-7	0	70-100	70-90	65-85	55-80	40-50	20-25
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
276----- Trag	0-3	Loam-----	ML, CL-ML	A-4	0-15	85-100	75-100	55-80	50-65	20-30	NP-10
	3-24	Clay loam, loam, sandy clay loam.	CL-ML, CL	A-4, A-6	0-15	85-100	80-100	75-95	55-75	25-35	5-15
	24-60	Sandy clay loam, clay loam, loam.	SC	A-2, A-6	0-15	80-95	75-90	60-80	30-50	25-30	10-15

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct						
278*: Microy-----	0-3	Cobbly loam-----	CL-ML, CL	A-4, A-6	15-30	75-95	70-90	55-75	50-65	20-30	5-15
	3-28	Cobbly clay, gravelly clay loam.	CL, CH	A-7	15-30	75-95	70-90	60-80	55-75	40-55	20-30
	28-36	Very cobbly clay, cobbly clay.	CL, CH	A-7	25-30	65-95	60-90	55-75	50-65	45-55	20-30
	36-40	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
282----- Cebolleta	0-4	Cobbly loam-----	CL-ML	A-4	30-40	85-95	80-90	70-85	60-75	20-25	5-10
	4-10	Very cobbly loam, very cobbly clay loam.	CL	A-6	45-55	75-90	70-85	60-75	50-65	25-35	10-20
	10-25	Very cobbly clay	SC, GC, CL, CH	A-7	40-55	55-85	50-80	45-70	40-60	45-60	20-30
	25-29	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
284*: Cebolleta-----	0-5	Very cobbly loam	GM-GC, SC-SM, CL-ML	A-4	40-45	55-85	50-80	45-65	40-55	20-25	5-10
	5-10	Very cobbly loam, very cobbly clay loam.	CL	A-6	45-55	75-90	70-85	60-75	50-65	25-35	10-20
	10-24	Very cobbly clay	SC, GC, CL, CH	A-6, A-7	40-55	55-85	50-80	45-70	40-60	35-55	20-40
	24-28	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
286*: Cebolleta-----	0-3	Very cobbly loam	GM-GC, SC-SM, CL-ML	A-4	40-45	55-85	50-80	45-65	40-55	20-25	5-10
	3-9	Very cobbly loam, very cobbly clay loam.	CL	A-6	45-55	75-90	70-85	60-75	50-65	25-35	10-20
	9-28	Very cobbly clay	SC, GC, CL, CH	A-6, A-7	40-55	55-85	50-80	45-70	40-60	35-55	20-40
	28-32	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Raton-----	0-3	Cobbly loam-----	CL	A-6	15-25	85-95	80-90	75-90	60-80	30-35	10-15
	3-10	Very stony clay, very cobbly clay loam.	CH, CL	A-7	50-80	85-95	80-90	75-90	65-85	40-60	20-30
	10-14	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
290*: Paguate-----	0-3	Loam-----	CL	A-6	0-10	90-100	85-100	75-90	65-80	25-35	10-15
	3-8	Clay loam-----	CL	A-6, A-7	0-10	90-100	85-100	80-95	70-85	35-45	15-20
	8-19	Clay, gravelly clay, cobbly clay.	CL, CH	A-7	0-15	85-100	80-100	75-95	70-85	45-55	20-30
	19-33	Cobbly loam, clay loam, gravelly clay loam.	CL	A-6	0-25	80-90	70-85	65-80	60-75	30-40	10-20
	33-37	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Hackroy-----	0-3	Cobbly loam-----	CL-ML, CL	A-4, A-6	30-40	85-95	80-90	70-85	60-75	20-30	5-15
	3-14	Clay loam, clay	CL, CH	A-7	0	95-100	95-100	80-90	70-85	40-55	20-30
	14-18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
291----- Paguate	0-5	Cobbly clay loam	CL	A-6	15-30	75-95	70-90	65-85	55-75	30-40	15-20
	5-26	Clay, gravelly clay, cobbly clay.	CL	A-7	0-25	75-100	70-100	65-95	60-85	40-50	20-30
	26-38	Gravelly loam, cobbly loam, clay loam.	CL	A-6	0-25	80-90	70-85	65-80	60-75	30-40	10-20
	38-42	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
294*: Parkay-----	0-2	Stony loam-----	CL	A-6	15-30	75-95	70-90	55-75	50-65	25-35	10-15
	2-23	Very cobbly sandy clay loam, very gravelly sandy clay loam, very cobbly clay loam.	GC, SC	A-2	25-45	50-70	45-65	40-60	20-35	30-40	10-20
	23-60	Very cobbly sandy clay loam, extremely cobbly sandy clay loam.	GC, SC	A-2, A-6	40-60	45-75	40-70	30-50	30-45	30-40	10-20
Rock outcrop.											
300----- Saladon	0-4	Clay loam-----	CL	A-6, A-7	0	100	100	90-100	80-90	35-45	15-20
	4-60	Clay, sandy clay, clay loam.	CL, CH	A-7	0	80-100	75-100	70-90	50-80	45-55	20-30
310----- Mirabal	0-3	Very gravelly loam.	GM-GC	A-2	10-25	40-60	35-55	30-45	20-35	20-25	5-10
	3-14	Very gravelly loam.	GM-GC	A-2, A-4	15-30	40-65	35-60	35-50	25-40	20-25	5-10
	14-21	Very cobbly sandy clay loam.	SC, GC	A-2, A-6	30-45	50-75	50-70	50-65	30-45	30-35	10-15
	21-25	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
315*: Abersito, cobbly	0-3	Very cobbly sandy clay loam.	SC, GC, CL	A-6	45-60	60-90	55-85	50-65	40-55	30-35	10-15
	3-9	Very cobbly fine sandy loam.	GM-GC, SC-SM	A-4, A-2	40-55	60-90	55-85	45-60	30-50	20-30	5-10
	9-24	Very cobbly clay	GC, CL, SC, CH	A-7	45-60	60-90	55-85	40-65	40-60	45-60	20-30
	24-28	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Abersito-----	0-5	Gravelly loam----	CL	A-6	5-15	65-80	60-75	55-70	50-65	25-35	10-15
	5-24	Very cobbly clay	GC, CL, SC, CH	A-7	45-60	60-90	55-85	40-65	40-60	45-60	20-30
	24-28	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
320----- Cinnadale	0-4	Gravelly very fine sandy loam.	SM, GM	A-2, A-4	0	65-80	60-75	55-70	30-50	20-25	NP-5
	4-12	Very channery loam, very channery silt loam.	GM	A-2, A-4	20-30	40-55	35-50	30-45	25-40	20-25	NP-5
	12-16	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
325----- Moreno Variant	0-7	Loam-----	SC-SM	A-4	0	95-100	90-100	45-55	40-50	20-25	5-10
	7-22	Very fine sandy loam.	SC-SM	A-4	0	95-100	90-100	80-90	35-40	20-25	5-10
	22-60	Sandy clay loam, clay loam.	SC	A-6	0	95-100	90-100	50-60	45-50	30-40	10-20
330----- Moreno	0-14	Loam-----	CL	A-6	5-10	95-100	90-95	75-90	55-70	25-35	10-15
	14-35	Clay loam, clay, gravelly clay.	CL, CH	A-7	5-15	95-100	70-95	60-90	50-75	40-55	20-30
	35-60	Very gravelly clay loam.	GC	A-2	10-15	50-60	45-55	35-50	25-35	35-45	15-20
340----- Yankee	0-3	Silty clay loam	CL	A-6	0	100	100	95-100	85-95	35-40	15-20
	3-60	Clay, silty clay, silty clay loam.	CL, CH	A-7	0	100	100	90-100	75-95	40-60	20-30
350*: Rock outcrop.											
Stout-----	0-3	Sandy loam-----	SM	A-2, A-4	0	80-100	75-100	55-75	25-40	20-25	NP-5
	3-14	Sandy loam-----	SM	A-2, A-4	0	80-100	75-100	55-75	25-40	20-25	NP-5
	14-18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
406*: Poley-----	0-3	Very cobbly loam	GC, GM-GC, CL-ML, CL	A-4, A-6	30-45	60-75	55-70	50-65	40-55	20-30	5-15
	3-60	Clay, clay loam	CL, CH	A-7	0	95-100	90-100	80-90	70-80	40-60	25-35
Rock outcrop.											

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
407*: Viuda-----	0-3	Very cobbly silty clay loam.	GC, CL	A-6, A-7	30-50	50-75	45-70	45-60	35-60	35-45	15-20
	3-13	Clay, sandy clay	CL, CH	A-7	0-10	95-100	90-100	55-75	50-65	40-55	20-30
	13-17	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
419----- Navajo	0-3	Silty clay loam	CL	A-6	0	100	100	90-100	80-90	30-40	10-20
	3-60	Silty clay, clay	CL	A-7	0	100	100	90-100	80-90	40-50	20-35
420*: Navajo-----	0-4	Clay loam-----	CL	A-6	0	100	100	85-95	75-85	30-40	10-20
	4-60	Silty clay, clay	CL	A-7	0	100	100	90-100	80-90	40-50	20-35
Suwanee-----	0-3	Silty clay loam	CL	A-6	0	100	100	90-100	80-90	35-40	15-20
	3-60	Stratified silty clay to loamy fine sand.	CL	A-6	0	100	100	80-95	50-60	25-40	10-20
424*: Mespun-----	0-2	Fine sand-----	SM	A-2	0	100	100	75-95	20-35	---	NP
	2-60	Fine sand, loamy fine sand, loamy sand.	SM	A-2	0	100	100	70-90	15-35	---	NP
Palma-----	0-4	Loamy fine sand	SM	A-2	0	100	100	50-75	20-30	15-20	NP-5
	4-60	Fine sandy loam, sandy loam.	SC-SM	A-4, A-2	0	100	100	65-75	30-40	15-25	5-10
426*: Sheppard-----	0-4	Loamy fine sand	SM	A-2	0	100	100	65-85	15-30	---	NP
	4-60	Loamy sand, loamy fine sand.	SM	A-2	0	100	100	65-85	15-30	---	NP
Shiprock-----	0-3	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	75-90	30-50	20-30	5-10
	3-60	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	100	100	75-90	30-50	20-30	5-10
432*: Winona-----	0-3	Very gravelly loam.	GM-GC	A-2	15-25	45-65	40-60	30-45	20-35	20-25	5-10
	3-10	Very cobbly loam	GM-GC, SC-SM, GC	A-2, A-4, A-6	30-50	55-75	50-70	45-65	30-50	20-35	5-15
	10-14	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
434*: Rizozo-----	0-2	Sandy loam-----	SC-SM, CL-ML	A-4	0-10	90-100	85-100	60-80	35-55	20-30	5-10
	2-10	Sandy loam, loam	SC-SM, CL-ML	A-4	0-10	90-100	85-100	65-85	40-60	25-30	5-10
	10-14	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
446*:											
Harvey-----	0-2	Loam-----	CL-ML	A-4	0	80-100	80-100	70-100	50-80	25-30	5-10
	2-60	Clay loam, loam	CL, SC	A-6	0	80-100	80-100	70-100	45-80	25-40	10-20
Oelop-----	0-3	Loam-----	CL	A-6	0	100	100	85-95	60-75	25-35	10-15
	3-60	Loam, clay loam, silty clay loam.	CL	A-6	0	100	100	85-100	65-85	25-40	10-20
476-----	0-2	Loam-----	CL-ML	A-4	0	100	100	80-90	65-75	20-30	5-10
Saido	2-60	Gypsiferous material.	---	---	---	---	---	---	---	---	---
485*:											
Rock outcrop.											
Mion-----	0-3	Stony loam-----	CL-ML	A-4	15-40	90-100	80-90	60-70	50-60	25-30	5-10
	3-13	Silty clay loam, silty clay.	CL, CH	A-7	0	100	100	90-100	75-95	40-60	20-30
	13-17	Weathered bedrock	---	---	---	---	---	---	---	---	---
487*:											
Mion-----	0-1	Loam-----	CL	A-6	0	100	100	80-90	70-85	30-35	10-15
	1-16	Silty clay, clay, clay loam.	CL, CH	A-7	0	100	100	90-100	75-95	45-55	20-30
	16-20	Weathered bedrock	---	---	---	---	---	---	---	---	---
Badland.											
500*:											
Timhus-----	0-5	Extremely gravelly loam.	GC	A-2	0-10	20-30	15-25	10-20	10-15	25-30	10-15
	5-20	Very gravelly loam.	GC	A-2	0-10	35-55	30-50	20-35	15-30	25-30	10-15
	20-29	Extremely gravelly loam.	GC	A-2	0-10	20-30	15-25	10-20	10-15	25-30	10-15
	29-60	Cinders-----	GP	A-1	0	5-15	0-10	0-5	0-5	---	NP
Bandera-----	0-3	Very gravelly loam.	GM-GC	A-2	0	35-60	25-50	20-45	10-35	20-25	5-10
	3-16	Very gravelly loam, gravelly loam.	GM-GC	A-2	0	35-60	25-50	20-45	10-35	20-25	5-10
	16-60	Cinders-----	GP	A-1	0	5-15	0-10	0-5	0-5	---	NP
505*:											
Flugle-----	0-5	Loamy fine sand	SM	A-2, A-4	0	100	90-100	75-90	25-40	15-20	NP-5
	5-41	Sandy clay loam, clay loam, loam.	CL, SC	A-6	0	100	90-100	60-80	40-60	30-40	10-20
	41-61	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	100	90-100	50-60	30-40	20-30	5-10
Goesling-----	0-5	Loamy fine sand	SM	A-2, A-4	0	100	90-100	75-90	25-40	15-20	NP-5
	5-18	Sandy clay loam, clay loam.	SC, CL	A-6	0	100	100	65-80	40-55	25-40	10-20
	18-60	Sandy loam, sandy clay loam, loam.	SC-SM, SC	A-2, A-4, A-1, A-6	0	100	100	40-55	20-40	25-35	5-15

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
514*: Raton-----	0-5	Very cobbly loam	CL	A-6	50-60	85-95	80-90	75-85	60-75	30-35	10-15
	5-13	Very cobbly clay	CH, CL	A-7	50-60	85-95	80-90	75-90	65-80	45-55	20-30
	13-17	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
515*: Rock outcrop.											
Vessilla-----	0-3	Sandy loam-----	SC-SM	A-2	0-10	100	100	60-75	25-35	20-30	5-10
	3-15	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0-10	90-100	85-100	60-80	25-40	15-25	5-10
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Mion-----	0-2	Loam-----	CL	A-6	0	100	100	80-90	70-85	30-35	10-15
	2-11	Silty clay, clay, clay loam.	CL, CH	A-7	0	100	100	90-100	75-95	45-55	20-30
	11-15	Weathered bedrock	---	---	---	---	---	---	---	---	---
518*: Borrego-----	0-3	Loam-----	CL	A-6	0-5	100	100	90-100	70-80	30-40	10-20
	3-11	Gravelly clay, clay, clay loam.	CL	A-7	0	80-100	70-90	65-85	55-80	40-50	20-25
	11-15	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Charo-----	0-2	Loam-----	CL	A-6	0-15	95-100	90-100	75-90	65-80	30-35	10-15
	2-27	Clay loam, clay	CL, CH	A-7	0-15	95-100	90-100	85-95	75-85	40-60	20-30
	27-31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
520*: Celacy-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0-5	95-100	90-100	60-70	30-40	20-25	5-10
	2-24	Sandy clay loam, clay loam.	SC, CL	A-6	0	95-100	90-100	65-75	40-55	25-40	10-20
	24-28	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Atarque-----	0-2	Fine sandy loam	SC-SM	A-4	0	100	100	70-85	40-50	20-25	5-10
	2-16	Sandy clay loam, clay loam.	SC, CL	A-6	0	100	100	80-95	40-60	30-40	10-20
	16-20	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
522*: Bandera, 30 to 45 percent slopes-----	0-8	Gravelly loam----	GM-GC	A-4	0	60-70	50-60	40-50	35-45	20-25	5-10
	8-18	Very gravelly loam.	GM-GC	A-2	0	35-60	25-50	20-45	10-35	20-25	5-10
	18-60	Cinders-----	GP	A-1	0	5-15	0-10	0-5	0-5	---	NP

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct						
522*: Bandera, 15 to 30 percent slopes-----	0-9	Gravelly loam----	GM-GC	A-4	0	60-70	50-60	40-50	35-45	20-25	5-10
	9-16	Very gravelly loam.	GM-GC	A-2	0	35-60	25-50	20-45	10-35	20-25	5-10
	16-60	Cinders-----	GP	A-1	0	5-15	0-10	0-5	0-5	---	NP
523*: Charo-----	0-2	Cobbly loam-----	CL	A-6	15-25	85-95	80-90	70-85	55-70	30-35	10-15
	2-28	Clay loam, clay	CL, CH	A-7	0-15	95-100	90-100	85-95	75-85	40-60	20-30
	28-32	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Raton-----	0-7	Very cobbly loam	CL	A-6	50-60	85-95	80-90	75-85	60-75	30-35	10-15
	7-18	Very cobbly clay, very stony silty clay loam, extremely stony clay.	CH, CL	A-7	50-80	85-95	80-90	75-90	65-85	40-60	20-30
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
525*: Catman-----	0-3	Clay loam-----	CL	A-6, A-7	0	100	100	65-95	50-80	30-45	10-20
	3-60	Clay-----	CH	A-7	0	100	100	90-100	80-90	60-70	30-40
Silkie-----	0-4	Clay loam-----	CL	A-6, A-7	0	100	100	90-100	70-80	35-45	15-20
	4-60	Clay, clay loam	CL, CH	A-7	0	100	100	85-95	70-90	40-55	15-30
535----- Millpaw	0-3	Loam-----	CL	A-6	0	100	100	80-90	65-75	25-35	10-15
	3-29	Clay loam, clay, sandy clay.	CL, CH	A-7	0	100	100	85-95	75-90	40-55	20-30
	29-60	Sandy clay loam, clay loam, loam.	CL	A-6	0	95-100	90-100	70-90	50-70	25-40	10-20
536----- McGaffey	0-3	Loam-----	CL	A-6	0	100	100	85-100	60-80	30-35	10-15
	3-60	Loam, clay loam	CL	A-6	0	100	100	80-95	55-75	30-35	10-15
537*: Millpaw-----	0-2	Loam-----	CL	A-6	0	100	100	80-90	65-75	25-35	10-15
	2-37	Clay loam, clay, sandy clay.	CL, CH	A-7	0	100	100	85-95	75-90	40-55	20-30
	37-60	Sandy clay loam, clay loam, loam.	CL	A-6	0	95-100	90-100	70-90	50-70	25-40	10-20
Loarc-----	0-4	Fine sandy loam	SM, ML	A-4	0	100	95-100	80-90	45-55	20-25	NP-5
	4-60	Sandy clay loam, clay loam, gravelly sandy loam.	CL	A-6	0	75-90	70-85	60-75	50-60	25-40	10-20
540----- Montecito	0-5	Fine sandy loam	SC-SM	A-4, A-2	0-15	95-100	90-100	50-70	30-50	20-30	5-10
	5-30	Clay loam, clay	CL, CH	A-7	0-10	90-100	85-100	65-80	55-70	40-55	20-30
	30-60	Gravelly clay loam, gravelly sandy clay, clay loam.	CL, CH	A-7	10-15	65-90	60-85	55-75	50-70	40-55	20-30

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
550*: Nogal-----	0-1	Sandy loam-----	SC-SM	A-4	0	95-100	90-100	60-80	35-50	20-25	5-10
	1-31	Clay, clay loam, gravelly clay.	CL, CH, SC	A-7	0	85-100	60-100	50-70	40-60	45-60	20-30
	31-35	Weathered bedrock	---	---	---	---	---	---	---	---	---
Galestina-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	60-75	30-45	20-30	5-10
	2-7	Loam, sandy clay loam, clay loam.	CL-ML, CL	A-4, A-6	0	100	100	85-95	60-75	25-35	5-15
	7-46	Clay, clay loam	CL, CH	A-6, A-7	0	100	100	90-100	75-95	35-55	15-30
	46-60	Weathered bedrock	---	---	---	---	---	---	---	---	---
555*: Pinitos-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	60-70	30-40	20-25	5-10
	2-24	Sandy clay loam, clay loam.	CL, SC	A-6	0	100	100	75-85	45-55	30-40	10-20
	24-60	Sandy loam, sandy clay loam.	SC-SM, SC	A-2, A-4, A-6	0	100	100	65-80	30-50	20-30	5-15
Ribera-----	0-3	Sandy loam-----	CL-ML, SC-SM	A-4	0	100	100	70-90	40-60	20-25	5-10
	3-39	Clay loam, sandy clay loam.	CL	A-6	0	100	100	85-95	50-75	30-35	10-15
	39-43	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
560*: Flugle-----	0-5	Loamy fine sand, fine sandy loam.	SM	A-2, A-4	0	100	90-100	75-90	25-40	15-20	NP-5
	5-37	Sandy clay loam, clay loam, loam.	CL, SC	A-6	0	100	90-100	60-80	40-60	30-40	10-20
	37-60	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	100	90-100	50-60	30-40	20-30	5-10
Teco-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	60-70	30-40	20-30	5-10
	2-18	Clay, clay loam, sandy clay.	CL	A-7	0	95-100	90-100	80-100	60-80	40-50	20-25
	18-60	Gravelly very fine sandy loam, clay loam, sandy clay loam.	SC-SM, CL, GM-GC, SC	A-2, A-4, A-6	0-5	60-95	55-90	45-80	25-60	25-35	5-15
561*: Flugle-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0	100	90-100	50-60	30-40	20-25	5-10
	2-47	Sandy clay loam, clay loam, loam.	CL, SC	A-6	0	100	90-100	60-80	40-60	30-40	10-20
	47-60	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	100	90-100	50-60	30-40	20-30	5-10
Quintana-----	0-11	Fine sandy loam	CL-ML	A-4	0	100	100	75-90	50-65	20-30	5-10
	11-46	Sandy clay loam, loam, clay loam.	CL	A-6	0	100	100	70-85	55-70	30-40	10-20
	46-60	Sandy loam, fine sandy loam.	CL-ML, SC-SM	A-4	0	100	100	65-80	45-65	20-30	5-10
565----- Quintana	0-4	Sandy loam-----	CL-ML, SC-SM	A-4	0	100	100	65-80	45-60	20-30	5-10
	4-21	Sandy clay loam, loam, clay loam.	CL	A-6	0	100	100	70-85	55-70	30-40	10-20
	21-60	Sandy loam, fine sandy loam.	CL-ML, SC-SM	A-4	0	100	100	65-80	45-65	20-30	5-10

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
570*: Torreon-----	0-2	Very cobbly loam	SC-SM, GM-GC	A-2, A-4	30-45	50-75	45-70	40-55	30-45	25-30	5-10
	2-25	Clay loam, clay	CL, CH	A-7	0-10	95-100	90-100	80-95	75-90	40-55	20-30
	25-60	Silty clay loam	CL	A-6, A-7	0-10	95-100	90-100	80-95	70-85	35-45	15-20
Rock outcrop.											
Cabezon-----	0-3	Very cobbly loam	SC, GC	A-6	40-55	55-85	50-80	40-60	35-50	25-35	10-15
	3-13	Clay loam, clay, sandy clay.	CL, CH	A-7	10-25	85-95	80-90	70-80	60-75	40-60	20-30
	13-17	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
575*: Teco-----	0-6	Fine sandy loam	SC-SM	A-2, A-4	0	100	100	60-70	30-40	20-30	5-10
	6-24	Clay, clay loam, sandy clay.	CL	A-7	0	95-100	90-100	80-100	60-80	40-50	20-25
	24-60	Gravelly very fine sandy loam, clay loam, sandy clay loam.	SC-SM, CL, GM-GC, SC	A-2, A-4, A-6	0-5	60-95	55-90	45-80	25-60	25-35	5-15
Atarque-----	0-3	Fine sandy loam	SC-SM	A-4	0	100	100	70-85	40-50	20-25	5-10
	3-19	Sandy clay loam, clay loam.	SC, CL	A-6	0	100	100	80-95	40-60	30-40	10-20
	19-23	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
576----- Teco	0-3	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	60-70	30-40	20-30	5-10
	3-60	Clay, clay loam, sandy clay.	CL	A-7	0	95-100	90-100	80-100	60-80	40-50	20-25
577*: Cabezon-----	0-2	Very cobbly loam	SC, GC	A-6	40-55	55-85	50-80	40-60	35-50	25-35	10-15
	2-18	Cobbly clay loam, clay, sandy clay.	CL, CH	A-7	10-25	85-95	80-90	70-80	60-75	40-60	20-30
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Montecito-----	0-3	Clay loam-----	CL	A-6	0-15	95-100	90-100	80-90	55-65	30-35	10-15
	3-24	Clay loam-----	CL	A-7	0-10	90-100	85-100	75-85	60-70	40-45	15-20
	24-60	Sandy clay-----	SC, CL	A-7	0-10	90-100	85-100	60-70	40-55	40-45	15-20
Rock outcrop.											
579*: Cabezon-----	0-2	Very cobbly sandy loam.	SC-SM, GM-GC	A-2	40-55	55-85	50-80	35-55	25-35	20-30	5-10
	2-14	Cobbly clay loam, clay, sandy clay.	CL, CH	A-7	10-25	85-95	80-90	70-80	60-75	40-60	20-30
	14-18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
579*: Cantina-----	0-2	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	60-75	30-40	25-30	5-10
	2-9	Sandy clay loam	SC	A-6	0	100	100	65-80	35-50	30-40	10-20
	9-31	Sandy clay, clay	CL, CH	A-7	0	100	100	70-85	55-70	40-60	15-30
	31-54	Sandy clay loam, sandy clay.	SC, CL	A-6, A-7	0	100	100	65-80	35-55	30-45	10-20
	54-58	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
581*: Laporte-----	0-1	Gravelly loam----	CL-ML, ML, GM, GM-GC	A-4	0-15	60-90	60-75	45-60	40-55	20-30	NP-10
	1-18	Gravelly loam, cobble loam.	CL-ML, SC-SM, CL, SC	A-4, A-6	10-25	70-90	65-85	50-70	45-60	25-35	5-15
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Vessilla-----	0-6	Sandy loam-----	SC-SM	A-2	0-10	100	100	60-75	25-35	20-30	5-10
	6-18	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0-10	90-100	85-100	60-80	25-40	15-25	5-10
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
582----- Kenray	0-15	Fine sand-----	SM	A-2	0	100	100	80-95	20-30	---	NP
	15-60	Loamy sand, fine sand, sand.	SM	A-2, A-4	0	100	100	65-85	10-40	---	NP
585----- Moncha	0-2	Silt loam-----	CL-ML	A-4	0	100	100	95-100	80-95	25-30	5-10
	2-21	Silty clay loam, silt loam.	CL	A-6	0	100	100	95-100	80-95	30-35	10-15
	21-60	Silt loam, silty clay loam.	CL-ML, CL	A-4, A-6	0	100	100	95-100	80-95	25-35	5-15
586*: Venadito-----	0-3	Clay loam-----	CL	A-6, A-7	0	100	100	85-95	75-85	35-45	15-20
	3-60	Clay-----	CH	A-7	0	100	100	95-100	85-95	55-65	30-40
Teco-----	0-3	Clay loam-----	CL	A-6	0	100	100	90-100	70-80	35-40	15-20
	3-60	Clay, clay loam, sandy clay.	CL	A-7	0	95-100	90-100	80-100	60-80	40-50	20-25
591*: Valnor-----	0-2	Clay loam-----	CL	A-6	0	90-100	75-100	60-75	50-65	30-40	10-20
	2-38	Clay, clay loam, sandy clay.	CL, CH	A-7	0	100	75-100	75-85	60-80	40-55	20-30
	38-42	Weathered bedrock	---	---	---	---	---	---	---	---	---
Techado-----	0-3	Channery clay loam.	CL, SC, GC	A-6	0	55-80	50-75	45-60	40-55	30-40	10-20
	3-16	Clay-----	CL, CH	A-7	0	80-100	75-100	70-85	65-80	40-55	20-35
	16-20	Weathered bedrock	---	---	---	---	---	---	---	---	---
610*: Grieta-----	0-8	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	65-80	25-45	20-30	5-10
	8-28	Sandy clay loam, clay loam, fine sandy loam.	SC	A-6	0	90-100	85-100	75-90	35-50	25-40	10-20
	28-60	Sandy loam, coarse sandy loam.	SM, SC-SM	A-2	0	90-100	85-100	50-70	20-35	15-30	NP-10

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
610*: Shiprock-----	0-3	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	75-90	30-50	20-30	5-10
	3-60	Sandy loam, fine sandy loam.	SC-SM	A-2, A-4	0	100	100	75-90	30-50	20-30	5-10
611*: Grieta-----	0-3	Sandy loam-----	SC-SM	A-2, A-4	0	100	100	65-80	25-45	20-30	5-10
	3-60	Sandy clay loam, clay loam, fine sandy loam.	SC	A-6	0	90-100	85-100	75-90	35-50	25-40	10-20
Kiki-----	0-6	Sandy loam-----	SC-SM	A-4	0	80-100	75-100	60-80	35-50	20-30	5-10
	6-14	Sandy clay loam, clay loam.	SC, CL	A-6	0	100	100	70-85	40-55	35-40	15-20
	14-24	Sandy clay loam, loam, clay loam.	SC, CL	A-6	0	100	100	65-80	35-55	30-40	10-15
	24-28	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
615*: Trag-----	0-2	Cobbly loam-----	CL-ML	A-4	15-25	85-95	80-90	70-80	50-60	20-30	5-10
	2-35	Loam, clay loam, sandy clay loam.	CL-ML, CL	A-4, A-6	0-15	90-100	90-100	70-95	50-75	20-35	5-15
	35-60	Cobbly sandy loam	SM	A-2, A-4	15-30	85-90	75-90	50-70	25-40	20-25	NP-5
Techado-----	0-2	Cobbly clay loam	CL	A-6	15-30	80-100	70-90	60-80	50-70	30-40	10-20
	2-19	Clay loam, sandy clay.	CL	A-6, A-7	0	80-100	75-100	70-85	65-80	30-45	15-25
	19-38	Weathered bedrock	---	---	---	---	---	---	---	---	---
	38-42	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
618----- Netoma	0-12	Sandy loam-----	SM, SC-SM	A-2, A-4	0	95-100	90-100	60-80	30-50	20-30	NP-10
	12-60	Gypsiferous material.	---	---	---	---	---	---	---	---	---
619----- Venadito	0-4	Clay loam-----	CL	A-6, A-7	0	100	100	85-95	75-85	35-45	15-20
	4-60	Clay-----	CH	A-7	0	100	100	95-100	85-95	55-65	30-40
620*: Aparejo-----	0-2	Silt loam-----	CL	A-6	0	100	100	85-95	70-85	25-30	10-15
	2-18	Silty clay loam, silt loam, clay loam.	CL	A-6	0	100	100	90-100	80-90	25-40	10-20
	18-60	Silt loam, sandy clay loam, clay loam.	CL	A-6	0	100	100	85-100	65-85	25-35	10-15
Venadito-----	0-3	Silty clay loam	CL	A-6, A-7	0	100	100	95-100	80-90	35-45	15-20
	3-60	Clay-----	CH	A-7	0	100	100	95-100	85-95	55-65	30-40
625*: Hagerman-----	0-6	Fine sandy loam	SC-SM	A-4	0	95-100	90-100	65-80	35-50	20-30	5-10
	6-34	Sandy clay loam, clay loam, sandy loam.	SC, CL	A-6	0	95-100	90-100	70-80	45-60	25-40	10-20
	34-38	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
625*: Bond-----	0-5	Sandy loam-----	SM	A-2, A-4	0-15	100	95-100	60-75	30-50	15-25	NP-5
	5-18	Sandy clay loam, clay loam, loam.	SC, CL	A-2, A-6	0-15	80-100	70-100	60-75	30-60	20-35	10-20
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
630*: Bond-----	0-2	Sandy loam-----	SM	A-2, A-4	0-15	100	95-100	60-75	30-50	15-25	NP-5
	2-19	Sandy clay loam, clay loam, loam.	SC, CL	A-2, A-6	0-15	80-100	70-100	60-75	30-60	20-35	10-20
	19-23	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rizozo-----	0-2	Loam-----	CL, SC	A-6	0	80-95	75-90	65-85	45-75	25-35	10-15
	2-14	Loam, silt loam	GC, SC, CL	A-6	0-15	65-90	60-85	45-75	35-60	25-35	10-15
	14-18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
640*: Flaco-----	0-2	Loam-----	CL-ML, CL	A-4, A-6	0	80-100	75-100	65-90	55-70	20-35	5-15
	2-11	Loam, clay loam	CL	A-6	0-15	100	100	75-85	60-75	25-40	10-20
	11-29	Loam, clay loam, gravelly loam.	CL	A-6	0-15	75-100	65-100	60-85	50-75	25-35	10-15
	29-33	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Berto-----	0-2	Loam-----	CL-ML	A-4	0-10	95-100	90-100	65-80	50-65	20-30	5-10
	2-11	Loam, clay loam	CL	A-6	0-10	95-100	90-100	70-85	55-70	25-35	10-15
	11-18	Cobbly loam, loam, cobbly clay loam.	CL	A-6	10-15	85-95	80-90	65-75	50-60	25-35	10-15
	18-22	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
641*: Berto-----	0-2	Cobbly loam-----	CL-ML	A-4	15-25	95-100	90-100	65-80	50-65	20-30	5-10
	2-8	Loam, clay loam	CL	A-6	0-10	95-100	90-100	70-85	55-70	25-35	10-15
	8-16	Cobbly loam, loam, cobbly clay loam.	CL	A-6	10-15	85-95	80-90	65-75	50-60	25-35	10-15
	16-20	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Flaco-----	0-2	Cobbly loam-----	CL-ML, CL	A-4, A-6	20-25	70-95	60-90	60-75	50-65	20-30	5-15
	2-9	Loam, clay loam	CL	A-6	0-15	100	100	75-85	60-75	25-40	10-20
	9-26	Loam, clay loam, gravelly loam.	CL	A-6	0-15	75-100	65-100	60-85	50-75	25-35	10-15
	26-30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
645*: Penistaja-----	0-3	Sandy loam-----	SC-SM, CL-ML	A-4	0	100	100	90-100	40-60	20-30	5-10
	3-18	Sandy clay loam, clay loam.	CL, SC	A-6	0	100	100	95-100	45-75	30-35	10-15
	18-60	Sandy loam, fine sandy loam, sandy clay loam.	SC, SC-SM, CL, CL-ML	A-2, A-4, A-6	0	100	100	70-95	30-55	20-30	5-15

See footnote at end of table.

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments 3-10 inches	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
645*: Oelop-----	0-3	Loam-----	CL	A-6	0	100	100	85-95	60-75	25-35	10-15
	3-60	Loam, clay loam, silty clay loam.	CL	A-6	0	100	100	85-100	65-85	25-40	10-20
650*: Winona-----	0-3	Very gravelly loam.	GM-GC	A-2	15-25	45-65	40-60	30-45	20-35	20-25	5-10
	3-15	Very cobbly loam	GM-GC, SC-SM, GC	A-2, A-4, A-6	30-50	55-75	50-70	45-65	30-50	20-35	5-15
	15-19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Tanbark-----	0-2	Loam-----	CL	A-6	0	100	100	90-100	70-90	25-35	10-15
	2-17	Gypsiferous material.	---	---	---	---	---	---	---	---	---
	17-21	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
660*: Rana-----	0-3	Very cobbly clay	CH	A-7	45-55	75-90	70-85	65-80	60-75	60-70	30-40
	3-34	Clay-----	CH	A-7	0	100	100	90-100	90-100	65-75	35-45
	34-60	Clay-----	CH	A-7	0	95-100	90-100	85-95	80-90	65-75	35-45
Rock outcrop.											

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction	Salinity	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter
									K	T		Pct
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					
10*. Lava flows												
20----- Penistaja	0-6 6-60	10-20 20-30	1.35-1.45 1.40-1.50	0.6-2.0 0.6-2.0	0.13-0.15 0.15-0.18	6.6-8.4 6.6-8.4	<2 <2	Low----- Low-----	0.28 0.32	5	3	.8-2
21----- Clovis	0-8 8-60	15-25 20-35	1.40-1.50 1.40-1.50	0.6-2.0 0.6-2.0	0.16-0.18 0.14-0.18	6.6-7.8 6.6-9.0	<2 <2	Low----- Moderate	0.37 0.32	5	5	.9-2
25*: Hickman-----	0-4 4-60	15-27 18-35	1.05-1.15 1.20-1.30	0.6-2.0 0.2-0.6	0.15-0.17 0.14-0.16	7.4-8.4 7.4-9.0	<2 <2	Low----- Moderate	0.37 0.32	5	5	2-4
Catman-----	0-12 12-60	30-40 60-75	1.40-1.50 1.15-1.25	0.2-0.6 <0.06	0.19-0.21 0.13-0.15	6.6-7.8 6.6-8.4	2-8 2-8	Moderate High-----	0.37 0.20	5	4L	.5-.9
30----- Warm Springs	0-8 8-36 36-60	10-20 18-25 18-25	1.30-1.35 1.25-1.30 1.25-1.30	0.6-2.0 0.6-2.0 0.6-2.0	0.10-0.12 0.08-0.12 0.09-0.12	7.4-8.4 7.9-9.0 8.5-9.0	2-8 2-8 2-8	Low----- Low----- Low-----	0.37 0.28 0.28	3	4L	4-7
40----- Aparejo	0-6 6-47 47-60	30-39 18-35 18-30	1.20-1.30 1.20-1.30 1.20-1.30	0.2-0.6 0.2-0.6 0.6-2.0	0.19-0.21 0.19-0.21 0.14-0.21	7.9-8.4 7.9-8.4 7.9-8.4	2-4 2-4 2-4	Moderate Moderate Low-----	0.32 0.37 0.32	5	4L	.5-.9
41----- Aparejo	0-6 6-42 42-60	28-35 25-35 5-35	1.50-1.55 1.50-1.55 1.30-1.35	0.2-0.6 0.2-0.6 2.0-6.0	0.19-0.21 0.15-0.20 0.08-0.12	7.9-8.4 7.9-8.4 7.9-8.4	2-4 2-4 2-4	Moderate Moderate Low-----	0.32 0.32 0.28	5	4L	.5-.9
45----- Aparejo	0-15 15-38 38-60	40-50 18-35 18-30	1.50-1.55 1.20-1.30 1.20-1.30	0.06-0.2 0.2-0.6 0.6-2.0	0.14-0.16 0.19-0.21 0.14-0.21	7.9-8.4 7.9-8.4 7.9-8.4	2-4 2-4 2-4	High----- Moderate Low-----	0.20 0.37 0.32	5	4	.5-.9
50----- Venadito	0-14 14-60	30-39 60-80	1.40-1.50 1.15-1.25	0.2-0.6 <0.06	0.19-0.21 0.14-0.16	7.9-8.4 7.9-8.4	<2 2-4	Moderate High-----	0.32 0.20	5	4L	<1
51----- Venadito	0-19 19-60	25-34 60-80	1.40-1.50 1.15-1.25	0.6-2.0 <0.06	0.14-0.16 0.14-0.16	7.9-8.4 7.9-8.4	<2 2-4	Low----- High-----	0.32 0.20	5	5	<1
52----- Venadito Variant	0-3 3-35 35-39	30-39 60-70 ---	1.40-1.45 1.20-1.25 ---	0.2-0.6 <0.06 ---	0.19-0.21 0.14-0.16 ---	6.6-7.3 6.6-7.8 ---	<2 <2 ---	Moderate High----- -----	0.32 0.20 ---	2	4L	.5-.9
55*: Glenberg-----	0-11 11-21 21-60	10-18 10-18 8-18	1.45-1.50 1.50-1.60 1.50-1.60	2.0-6.0 2.0-6.0 2.0-6.0	0.10-0.13 0.10-0.13 0.09-0.12	7.4-7.8 7.9-8.4 7.9-8.4	<4 <4 <4	Low----- Low----- Low-----	0.24 0.24 0.17	5	3	.5-1
San Mateo-----	0-4 4-60	20-30 18-35	1.35-1.45 1.35-1.45	0.6-2.0 0.6-2.0	0.14-0.16 0.15-0.17	7.4-8.4 7.4-9.0	<2 2-4	Low----- Moderate	0.32 0.32	5	4L	.5-.9
56----- Mespun	0-2 2-60	2-10 3-10	1.35-1.45 1.35-1.45	>20 6.0-20	0.06-0.08 0.05-0.09	6.1-7.8 6.1-7.8	<2 <2	Low----- Low-----	0.17 0.17	5	2	.3-.5
57----- San Mateo	0-6 6-60	27-35 18-35	1.35-1.45 1.35-1.45	0.2-0.6 0.6-2.0	0.19-0.21 0.15-0.17	7.4-8.4 7.4-9.0	<2 2-4	Moderate Moderate	0.24 0.32	5	4L	.5-.9

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
58----- San Mateo	0-4 4-47 47-60	20-30 20-35 18-35	1.35-1.45 1.35-1.45 1.35-1.45	0.6-2.0 0.6-2.0 0.6-2.0	0.14-0.16 0.15-0.17 0.15-0.17	7.4-8.4 7.4-8.4 7.4-9.0	<2 2-4 2-4	Low----- Moderate Moderate	0.32 0.32 0.32	5	4L	.5-.9
60----- Sparank	0-10 10-60	30-40 35-50	1.35-1.45 1.50-1.60	0.2-0.6 <0.06	0.19-0.21 0.16-0.18	7.4-8.4 7.4-8.4	2-4 2-4	Moderate High-----	0.32 0.37	5	4L	1-2
61----- Sparham	0-10 10-60	30-40 40-60	1.35-1.40 1.30-1.35	0.2-0.6 <0.06	0.19-0.21 0.14-0.17	7.4-7.8 7.4-7.8	4-8 4-16	Moderate High-----	0.32 0.24	5	4L	.7-.9
62----- Sparank	0-5 5-60	25-35 35-50	1.30-1.40 1.35-1.45	0.6-2.0 <0.06	0.04-0.06 0.04-0.06	7.9-9.0 7.9-9.0	>16 >16	Moderate High-----	0.32 0.37	5	5	1-2
66----- Zia	0-8 8-60	8-20 8-20	1.45-1.55 1.50-1.60	2.0-6.0 2.0-6.0	0.12-0.14 0.11-0.14	7.4-8.4 7.4-8.4	<2 <2	Low----- Low-----	0.28 0.28	5	3	.5-.9
70----- Catman	0-6 6-60	25-40 60-75	1.40-1.50 1.15-1.25	0.2-0.6 <0.06	0.14-0.20 0.13-0.15	6.6-7.8 6.6-8.4	2-8 2-8	Moderate High-----	0.32 0.20	5	4L	.5-.9
72----- Catman Variant	0-10 10-60	30-40 60-70	1.35-1.40 1.20-1.25	0.2-0.6 <0.06	0.13-0.14 0.07-0.11	7.9-8.4 7.9-8.4	4-8 4-16	Moderate High-----	0.32 0.20	5	4L	.5-.9
73----- Catman	0-10 10-60	25-40 60-75	1.40-1.50 1.15-1.25	0.2-0.6 <0.06	0.14-0.20 0.13-0.15	6.6-7.8 6.6-8.4	2-8 2-8	Moderate High-----	0.32 0.20	5	4L	.5-.9
75----- Hickman	0-6 6-60	28-35 18-35	1.20-1.30 1.20-1.30	0.2-0.6 0.2-0.6	0.18-0.20 0.14-0.16	7.4-8.4 7.4-9.0	<2 <2	Moderate Moderate	0.32 0.32	5	6	2-4
100----- Manzano	0-4 4-60	10-25 18-34	1.20-1.30 1.40-1.50	0.6-2.0 0.2-0.6	0.16-0.18 0.17-0.20	6.6-7.8 7.4-8.4	<2 <2	Low----- Moderate	0.37 0.37	5	6	2-3
120*: Rock outcrop.												
Laporte-----	0-2 2-11 11-15	15-25 15-27 ---	1.35-1.40 1.35-1.40 ---	0.6-2.0 0.6-2.0 0.00-0.2	0.08-0.12 0.11-0.14 ---	7.4-8.4 7.4-8.4 ---	<2 <2 ---	Low----- Low----- -----	0.10 0.20 ---	1	7	1-2
130*: Laporte-----	0-3 3-11 11-15	12-20 15-27 ---	1.35-1.40 1.35-1.40 ---	0.6-2.0 0.6-2.0 0.00-0.2	0.11-0.14 0.11-0.14 ---	7.4-8.4 7.4-8.4 ---	<2 <2 ---	Low----- Low----- -----	0.20 0.20 ---	1	5	1-2
Rock outcrop.												
200----- Penistaja	0-2 2-22 22-60	10-20 20-30 15-25	1.35-1.45 1.40-1.50 1.20-1.30	0.6-2.0 0.6-2.0 2.0-6.0	0.13-0.15 0.15-0.18 0.12-0.15	6.6-8.4 6.6-8.4 6.6-8.4	<2 <2 <2	Low----- Low----- Low-----	0.28 0.32 0.28	5	3	.8-2
205----- Ildefonso	0-3 3-60	8-18 20-25	1.45-1.55 1.45-1.55	2.0-6.0 2.0-6.0	0.04-0.08 0.04-0.08	7.4-7.8 7.9-9.0	<2 <2	Low----- Low-----	0.10 0.10	5	6	.5-2
210*: Bond-----	0-7 7-16 16-20	8-17 20-35 ---	1.45-1.55 1.45-1.55 ---	0.6-2.0 0.2-0.6 ---	0.12-0.14 0.11-0.13 ---	6.6-7.8 6.6-8.4 ---	<2 <2 ---	Low----- Moderate -----	0.28 0.28 ---	1	3	.8-1
Penistaja-----	0-3 3-30 30-60	10-20 20-30 15-25	1.35-1.45 1.40-1.50 1.20-1.30	0.6-2.0 0.6-2.0 2.0-6.0	0.13-0.15 0.15-0.18 0.12-0.15	6.6-8.4 6.6-8.4 6.6-8.4	<2 <2 <2	Low----- Low----- Low-----	0.28 0.32 0.28	5	3	.8-2

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction	Salinity	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter
									K	T		
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
210*: Rock outcrop.												
218*: Viuda-----	0-3	10-20	1.35-1.40	2.0-6.0	0.05-0.07	7.4-7.8	<2	Low-----	0.10	1	6	.5-.9
	3-16	35-50	1.40-1.45	0.06-0.2	0.14-0.17	7.9-8.4	<2	High-----	0.20			
	16-19	20-35	1.45-1.50	0.6-2.0	0.15-0.17	7.9-8.4	<2	Moderate	0.15			
	19-23	---	---	---	---	---	---	-----	---			
Penistaja-----	0-2	10-20	1.35-1.45	0.6-2.0	0.13-0.15	6.6-8.4	<2	Low-----	0.28	5	3	.8-2
	2-24	20-30	1.40-1.50	0.6-2.0	0.15-0.18	6.6-8.4	<2	Low-----	0.32			
	24-60	15-25	1.20-1.30	2.0-6.0	0.12-0.15	6.6-8.4	<2	Low-----	0.28			
Rock outcrop.												
230*: Dumps.												
Pits.												
251*: Skyvillage-----	0-4	10-15	1.35-1.45	2.0-6.0	0.11-0.13	7.4-8.4	<2	Low-----	0.28	1	3	1-2
	4-12	10-18	1.45-1.55	2.0-6.0	0.14-0.16	7.4-8.4	<2	Low-----	0.32			
	12-16	---	---	---	---	---	---	-----	---			
Rock outcrop.												
Bond-----	0-4	8-17	1.45-1.55	0.6-2.0	0.12-0.14	6.6-7.8	<2	Low-----	0.28	1	3	.8-1
	4-10	20-35	1.45-1.55	0.2-0.6	0.11-0.13	6.6-8.4	<2	Moderate	0.28			
	10-14	---	---	---	---	---	---	-----	---			
257*: Sparank-----	0-2	30-40	1.35-1.45	0.2-0.6	0.19-0.21	7.4-8.4	2-4	Moderate	0.32	5	4L	1-2
	2-60	35-50	1.50-1.60	<0.06	0.16-0.18	7.4-8.4	2-4	High-----	0.37			
San Mateo-----	0-2	15-25	1.35-1.45	0.6-2.0	0.16-0.18	7.4-8.4	<2	Low-----	0.37	5	4L	.5-.9
	2-29	20-35	1.35-1.45	0.6-2.0	0.15-0.17	7.4-8.4	2-4	Moderate	0.32			
	29-60	18-35	1.35-1.45	0.6-2.0	0.15-0.17	7.4-9.0	2-4	Moderate	0.32			
259-----	0-4	10-25	1.40-1.45	0.6-2.0	0.16-0.18	6.6-8.4	<2	Low-----	0.32	5	5	1-3
Mikim	4-60	18-32	1.35-1.45	0.6-2.0	0.14-0.16	7.4-9.0	<2	Low-----	0.32			
262*: Poley-----	0-2	15-25	1.20-1.25	0.6-2.0	0.06-0.12	6.1-7.8	<2	Moderate	0.10	5	8	1-2
	2-18	35-55	1.35-1.45	0.06-0.2	0.12-0.21	6.1-8.4	<4	High-----	0.20			
	18-60	15-25	1.45-1.55	0.6-2.0	0.14-0.18	7.9-8.4	<4	Moderate	0.37			
Pojoaque-----	0-3	18-27	1.30-1.35	0.6-2.0	0.08-0.10	7.4-7.8	<2	Low-----	0.10	5	6	.5-.9
	3-60	20-30	1.50-1.55	0.6-2.0	0.12-0.15	7.4-8.4	<2	Low-----	0.15			
264-----	0-4	10-18	1.30-1.35	2.0-6.0	0.11-0.13	7.4-7.8	<2	Low-----	0.24	4	3	.5-.9
Tapia	4-23	20-35	1.50-1.55	0.6-2.0	0.15-0.20	7.4-8.4	<2	Moderate	0.32			
	23-40	15-25	1.50-1.55	2.0-6.0	0.11-0.14	7.9-8.4	<2	Low-----	0.15			
	40-60	0-10	1.30-1.35	6.0-20	0.04-0.06	7.9-8.4	<2	Low-----	0.05			
270-----	0-5	20-27	1.30-1.40	0.6-2.0	0.16-0.18	6.6-7.3	<2	Low-----	0.37	2	6	1-2
Charo	5-28	35-60	1.35-1.45	0.06-0.2	0.15-0.18	6.6-7.8	<2	Moderate	0.28			
	28-32	---	---	---	---	---	---	-----	---			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
272*: Cebolleta-----	0-2	15-25	1.15-1.25	0.6-2.0	0.12-0.14	6.1-7.3	<2	Low-----	0.20	2	6	1-2
	2-8	20-40	1.20-1.30	0.2-0.6	0.09-0.11	6.1-7.3	<2	Moderate	0.10			
	8-25	40-60	1.30-1.40	0.06-0.2	0.08-0.10	6.1-7.8	<2	High-----	0.05			
	25-29	---	---	---	---	---	---	-----	---			
Borrego-----	0-4	18-27	1.20-1.30	0.6-2.0	0.13-0.15	6.1-7.3	<2	Low-----	0.20	1	7	2-4
	4-18	35-45	1.40-1.50	<0.06	0.10-0.12	5.6-7.8	<2	High-----	0.20			
	18-22	---	---	---	---	---	---	-----	---			
Rock outcrop.												
276----- Trag	0-3	15-25	1.20-1.30	0.6-2.0	0.14-0.16	6.1-7.3	<2	Low-----	0.24	5	5	2-4
	3-24	18-35	1.40-1.50	0.6-2.0	0.14-0.16	6.1-7.8	<2	Moderate	0.32			
	24-60	18-30	1.40-1.50	0.6-2.0	0.12-0.16	6.1-7.8	<2	Moderate	0.28			
278*: Microy-----	0-3	15-27	1.40-1.50	0.6-2.0	0.12-0.14	6.6-7.3	<2	Low-----	0.20	2	7	1-2
	3-28	35-50	1.35-1.45	0.06-0.2	0.10-0.12	6.6-7.8	<2	High-----	0.10			
	28-36	40-50	1.40-1.50	0.06-0.2	0.09-0.11	7.4-7.8	<2	High-----	0.05			
	36-40	---	---	---	---	---	---	-----	---			
Rock outcrop.												
282----- Cebolleta	0-4	15-25	1.15-1.25	0.6-2.0	0.12-0.14	6.1-7.3	<2	Low-----	0.20	2	6	1-2
	4-10	20-40	1.20-1.30	0.2-0.6	0.09-0.11	6.1-7.3	<2	Moderate	0.10			
	10-25	40-60	1.30-1.40	0.06-0.2	0.08-0.10	6.1-7.8	<2	High-----	0.05			
	25-29	---	---	---	---	---	---	-----	---			
284*: Cebolleta-----	0-5	15-25	1.15-1.25	0.6-2.0	0.08-0.10	6.1-7.3	<2	Low-----	0.10	2	7	1-2
	5-10	20-40	1.20-1.30	0.2-0.6	0.09-0.11	6.1-7.3	<2	Moderate	0.10			
	10-24	40-60	1.30-1.40	0.06-0.2	0.08-0.10	6.1-7.3	<2	High-----	0.05			
	24-28	---	---	---	---	---	---	-----	---			
Rock outcrop.												
286*: Cebolleta-----	0-3	15-25	1.15-1.25	0.6-2.0	0.08-0.10	6.1-7.3	<2	Low-----	0.10	2	7	1-2
	3-9	20-40	1.20-1.30	0.2-0.6	0.09-0.11	6.1-7.3	<2	Moderate	0.10			
	9-28	40-60	1.30-1.40	0.06-0.2	0.08-0.10	6.1-7.3	<2	High-----	0.05			
	28-32	---	---	---	---	---	---	-----	---			
Raton-----	0-3	20-27	1.20-1.30	0.2-0.6	0.10-0.12	6.6-7.3	<2	Low-----	0.24	1	7	2-4
	3-10	35-55	1.35-1.45	0.06-0.2	0.08-0.09	6.6-7.3	<2	High-----	0.10			
	10-14	---	---	---	---	---	---	-----	---			
290*: Paguate-----	0-3	18-26	1.15-1.25	0.6-2.0	0.14-0.18	6.6-7.8	<2	Low-----	0.37	2	6	1-2
	3-8	30-40	1.40-1.50	0.2-0.6	0.16-0.21	6.6-7.8	<2	Moderate	0.32			
	8-19	40-50	1.35-1.45	0.06-0.2	0.11-0.16	7.4-8.4	<2	High-----	0.15			
	19-33	25-35	1.20-1.30	0.2-0.6	0.11-0.19	7.4-8.4	<2	Moderate	0.28			
	33-37	---	---	---	---	---	---	-----	---			
Hackroy-----	0-3	15-25	1.20-1.30	0.6-2.0	0.12-0.14	6.6-7.8	<2	Low-----	0.20	1	6	1-2
	3-14	35-50	1.40-1.50	0.06-0.2	0.15-0.20	6.6-7.8	<2	High-----	0.32			
	14-18	---	---	---	---	---	---	-----	---			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
291----- Paguate	0-5	27-35	1.25-1.35	0.2-0.6	0.12-0.17	6.6-7.8	<2	Moderate	0.32	2	8	1-2
	5-26	40-50	1.35-1.45	0.06-0.2	0.11-0.15	7.4-8.4	<2	High-----	0.15			
	26-38	25-35	1.20-1.30	0.2-0.6	0.11-0.19	7.4-8.4	<2	Moderate	0.28			
	38-42	---	---	---	---	---	---	-----	---			
294*: Parkay-----	0-2	18-27	1.35-1.40	0.6-2.0	0.12-0.14	7.4-7.8	<2	Low-----	0.20	5	7	2-3
	2-23	20-35	1.50-1.55	0.6-2.0	0.07-0.09	6.1-7.3	<2	Low-----	0.10			
	23-60	20-35	1.50-1.55	0.6-2.0	0.06-0.08	6.1-7.3	<2	Low-----	0.10			
Rock outcrop.												
300----- Saladon	0-4	30-40	1.00-1.05	0.2-0.6	0.19-0.21	6.1-7.3	<2	Moderate	0.32	5	4	5-10
	4-60	35-50	1.35-1.45	<0.06	0.15-0.17	6.1-7.3	<2	High-----	0.32			
310----- Mirabal	0-3	10-18	1.40-1.50	0.6-2.0	0.09-0.10	6.1-6.5	<2	Low-----	0.10	2	7	1-2
	3-14	10-18	1.40-1.50	0.6-2.0	0.09-0.10	6.1-6.5	<2	Low-----	0.10			
	14-21	20-25	1.25-1.35	0.6-2.0	0.07-0.09	6.1-6.5	<2	Low-----	0.10			
	21-25	---	---	---	---	---	---	-----	---			
315*: Abersito, cobbly	0-3	21-30	1.15-1.25	0.6-2.0	0.07-0.08	6.1-6.5	<2	Low-----	0.10	2	7	1-2
	3-9	10-19	1.40-1.50	2.0-6.0	0.07-0.08	6.1-6.5	<2	Low-----	0.10			
	9-24	40-55	1.40-1.50	0.06-0.2	0.07-0.08	6.1-6.5	<2	High-----	0.05			
	24-28	---	---	---	---	---	---	-----	---			
Abersito-----	0-5	18-26	1.15-1.25	0.6-2.0	0.12-0.14	6.1-6.5	<2	Low-----	0.20	2	7	1-2
	5-24	40-55	1.40-1.50	0.06-0.2	0.07-0.08	6.1-6.5	<2	High-----	0.05			
	24-28	---	---	---	---	---	---	-----	---			
Rock outcrop.												
320----- Cinnadale	0-4	10-15	1.35-1.45	2.0-6.0	0.12-0.14	6.6-7.3	<2	Low-----	0.28	1	4	1-2
	4-12	10-15	1.40-1.50	2.0-6.0	0.08-0.10	6.6-7.3	<2	Low-----	0.10			
	12-16	---	---	---	---	---	---	-----	---			
325----- Moreno Variant	0-7	10-15	1.35-1.45	0.6-2.0	0.16-0.18	6.1-7.3	<2	Low-----	0.37	5	5	1-2
	7-22	10-15	1.50-1.60	0.6-2.0	0.15-0.17	6.6-7.3	<2	Low-----	0.55			
	22-60	25-35	1.45-1.55	0.2-0.6	0.14-0.21	6.6-7.3	<2	Moderate	0.32			
330----- Moreno	0-14	18-27	1.15-1.25	0.6-2.0	0.16-0.18	6.6-7.3	<2	Low-----	0.37	5	6	1-2
	14-35	35-50	1.40-1.50	0.06-0.2	0.16-0.20	6.6-7.8	<2	High-----	0.32			
	35-60	30-40	1.40-1.50	0.2-0.6	0.11-0.13	6.6-7.8	<2	Moderate	0.10			
340----- Yankee	0-3	30-35	1.40-1.50	0.2-0.6	0.19-0.21	6.6-7.3	<2	Moderate	0.37	5	6	1-2
	3-60	40-55	1.30-1.40	0.06-0.2	0.14-0.16	6.6-8.4	<2	High-----	0.24			
350*: Rock outcrop.												
Stout-----	0-3	10-18	1.50-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	1	3	.5-.9
	3-14	10-18	1.50-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24			
	14-18	---	---	---	---	---	---	-----	---			
406*: Poley-----	0-3	15-25	1.25-1.30	0.6-2.0	0.09-0.10	6.6-7.3	<2	Low-----	0.10	5	6	.5-.9
	3-60	30-55	1.40-1.45	0.06-0.2	0.14-0.16	7.4-9.0	<2	High-----	0.28			
Rock outcrop.												

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
407*: Viuda-----	0-3 3-13 13-17	30-40 35-50 ---	1.45-1.50 1.40-1.45 ---	0.2-0.6 0.06-0.2 ---	0.09-0.11 0.14-0.17 ---	7.4-7.8 7.9-8.4 ---	<2 <2 ---	Moderate High----- -----	0.10 0.20 ---	1	8	.5-.9
Rock outcrop.												
419----- Navajo	0-3 3-60	30-39 35-55	1.40-1.45 1.35-1.40	0.2-0.6 <0.06	0.14-0.18 0.11-0.15	7.4-7.8 7.4-8.4	4-8 4-8	Moderate High-----	0.37 0.20	5	4L	.5-.9
420*: Navajo-----	0-4 4-60	30-39 35-55	1.40-1.45 1.35-1.40	0.2-0.6 <0.06	0.14-0.18 0.11-0.15	7.4-7.8 7.4-8.4	4-8 4-8	Moderate High-----	0.32 0.20	5	4L	.5-.9
Suwanee-----	0-3 3-60	28-35 18-35	1.20-1.30 1.20-1.30	0.2-0.6 0.2-0.6	0.19-0.21 0.12-0.14	7.4-7.8 7.4-9.0	2-4 2-4	Moderate Moderate	0.37 0.24	5	4L	.5-.9
424*: Mespun-----	0-2 2-60	3-8 3-10	1.35-1.45 1.35-1.45	>20 6.0-20	0.05-0.07 0.05-0.09	6.1-7.8 6.1-7.8	<2 <2	Low----- Low-----	0.17 0.17	5	1	.5-.7
Palma-----	0-4 4-60	5-10 10-20	1.70-1.75 1.65-1.70	6.0-20. 2.0-6.0	0.06-0.11 0.13-0.17	6.6-8.4 7.4-8.4	<2 <2	Low----- Low-----	0.20 0.28	5	2	1-2
426*: Sheppard-----	0-4 4-60	5-10 5-10	1.45-1.60 1.45-1.60	6.0-20 6.0-20	0.06-0.08 0.06-0.08	7.4-8.4 7.4-8.4	<2 <2	Low----- Low-----	0.15 0.15	5	2	<.5
Shiprock-----	0-3 3-60	10-20 10-18	1.45-1.55 1.45-1.55	2.0-6.0 2.0-6.0	0.09-0.12 0.09-0.12	7.4-8.4 7.4-9.0	<2 <4	Low----- Low-----	0.28 0.28	5	3	.5-.6
432*: Winona-----	0-3 3-10 10-14	15-25 15-30 ---	1.20-1.30 1.20-1.30 ---	0.6-2.0 0.6-2.0 ---	0.09-0.10 0.09-0.10 ---	7.4-7.8 7.4-8.4 ---	<2 <2 ---	Low----- Low----- -----	0.10 0.10 ---	1	6	1-2
Rock outcrop.												
434*: Rizozo-----	0-2 2-10 10-14	10-20 15-24 ---	1.40-1.50 1.35-1.45 ---	2.0-6.0 2.0-6.0 ---	0.11-0.13 0.11-0.15 ---	7.4-8.4 7.4-8.4 ---	<2 <2 ---	Low----- Low----- -----	0.24 0.24 ---	1	3	.5-1
Rock outcrop.												
446*: Harvey-----	0-2 2-60	15-25 18-35	1.15-1.25 1.40-1.50	0.6-2.0 0.6-2.0	0.16-0.18 0.14-0.18	7.4-8.4 7.9-8.4	<2 <2	Low----- Moderate	0.37 0.37	5	4L	1-2
Oelop-----	0-3 3-60	18-27 18-35	1.20-1.30 1.45-1.55	0.6-2.0 0.2-0.6	0.16-0.18 0.17-0.20	7.4-8.4 7.4-8.4	<2 2-4	Low----- Moderate	0.37 0.37	5	6	1-2
476----- Saïdo	0-2 2-60	10-20 ---	1.50-1.60 ---	0.6-2.0 ---	0.16-0.18 ---	7.4-8.4 ---	2-4 ---	Low----- -----	0.37 ---	5	4L	.2-.6
485*: Rock outcrop.												
Mion-----	0-3 3-13 13-17	15-25 35-55 ---	1.20-1.30 1.35-1.45 ---	0.6-2.0 <0.06 ---	0.10-0.15 0.15-0.21 ---	6.6-8.4 7.4-8.4 ---	<2 <2 ---	Low----- High----- -----	0.20 0.17 ---	1	8	2-4

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction	Salinity	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter
									K	T		Pct
487*: Mion-----	0-1	20-27	1.30-1.40	0.6-2.0	0.16-0.18	7.4-8.4	<2	Low-----	0.37	1	4L	1-3
	1-16	38-55	1.35-1.45	<0.06	0.15-0.17	7.4-8.4	<2	High-----	0.32			
	16-20	---	---	---	---	---	---	---	---			
Badland.												
500*: Timhus-----	0-5	18-25	1.50-1.55	0.6-2.0	0.05-0.06	6.6-7.3	<2	Low-----	0.05	3	8	1-2
	5-20	18-25	1.50-1.55	0.6-2.0	0.08-0.09	7.4-8.4	<2	Low-----	0.10			
	20-29	18-25	1.50-1.55	0.6-2.0	0.05-0.06	7.9-8.4	<2	Low-----	0.05			
	29-60	---	1.00-1.10	6.0-20	0.01-0.03	7.9-8.4	<2	Low-----	0.02			
Bandera-----	0-3	10-15	1.10-1.20	0.6-2.0	0.06-0.12	6.6-8.4	<2	Low-----	0.10	1	7	2-3
	3-16	10-15	1.10-1.20	0.6-2.0	0.06-0.12	6.6-8.4	<2	Low-----	0.10			
	16-60	0-5	1.00-1.10	>20	0.01-0.03	6.6-8.4	<2	Low-----	0.02			
505*: Flugle-----	0-5	5-10	1.45-1.55	6.0-20	0.09-0.10	6.6-7.3	<2	Low-----	0.20	5	2	1-3
	5-41	20-35	1.45-1.55	0.6-2.0	0.16-0.18	6.6-8.4	<2	Moderate	0.37			
	41-61	10-20	1.45-1.55	0.6-2.0	0.11-0.13	7.4-8.4	<2	Low-----	0.24			
Goesling-----	0-5	5-10	1.45-1.55	6.0-20	0.09-0.10	6.6-7.8	<2	Low-----	0.20	5	2	1-3
	5-18	18-35	1.45-1.55	0.2-0.6	0.17-0.19	6.6-8.4	<2	Moderate	0.32			
	18-60	16-30	1.40-1.50	0.2-0.6	0.13-0.15	7.4-8.4	<2	Low-----	0.28			
514*: Raton-----	0-5	20-27	1.20-1.30	0.2-0.6	0.06-0.12	6.6-7.3	<2	Low-----	0.20	1	8	2-4
	5-13	40-55	1.35-1.45	0.06-0.2	0.05-0.10	6.6-7.3	<2	High-----	0.05			
	13-17	---	---	---	---	---	---	---	---			
Rock outcrop.												
515*: Rock outcrop.												
Vessilla-----	0-3	10-20	1.45-1.55	2.0-6.0	0.11-0.13	6.6-8.4	<2	Low-----	0.24	1	3	.6-.9
	3-15	8-18	1.50-1.60	2.0-6.0	0.13-0.15	7.4-8.4	<2	Low-----	0.28			
	15-19	---	---	---	---	---	---	---	---			
Mion-----	0-2	20-27	1.30-1.40	0.6-2.0	0.16-0.18	7.4-8.4	<2	Low-----	0.37	1	4L	1-3
	2-11	38-55	1.35-1.45	<0.06	0.15-0.17	7.4-8.4	<2	High-----	0.32			
	11-15	---	---	---	---	---	---	---	---			
518*: Borrego-----	0-3	20-35	1.20-1.30	0.2-0.6	0.13-0.15	6.1-7.3	<2	Moderate	0.37	1	6	2-4
	3-11	35-45	1.40-1.50	<0.06	0.10-0.12	5.6-7.8	<2	High-----	0.20			
	11-15	---	---	---	---	---	---	---	---			
Charo-----	0-2	20-27	1.30-1.40	0.6-2.0	0.16-0.18	6.6-7.3	<2	Low-----	0.37	2	6	1-2
	2-27	35-60	1.35-1.45	0.06-0.2	0.15-0.18	6.6-7.8	<2	Moderate	0.28			
	27-31	---	---	---	---	---	---	---	---			
Rock outcrop.												
520*: Celacy-----	0-2	15-18	1.35-1.45	2.0-6.0	0.11-0.13	7.4-7.8	<2	Low-----	0.24	2	3	1-3
	2-24	18-35	1.45-1.55	0.6-2.0	0.16-0.18	7.4-7.8	<2	Moderate	0.37			
	24-28	---	---	---	---	---	---	---	---			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction	Salinity	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter
									K	T		Pct
520*: Atarque-----	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					
	0-2	10-18	1.40-1.50	2.0-6.0	0.13-0.15	6.6-7.3	<2	Low-----	0.28	1	3	.5-.9
	2-16	24-35	1.40-1.50	0.6-2.0	0.14-0.16	6.6-7.8	<2	Moderate	0.32			
	16-20	---	---	---	---	---	---	---	---			
522*: Bandera, 30 to slopes-----	0-8	10-15	1.10-1.20	0.6-2.0	0.10-0.15	6.6-8.4	<2	Low-----	0.20	1	6	2-3
	8-18	10-15	1.10-1.20	0.6-2.0	0.06-0.12	6.6-8.4	<2	Low-----	0.10			
	18-60	0-5	1.00-1.10	>20	0.01-0.03	6.6-8.4	<2	Low-----	0.02			
Bandera, 15 to slopes-----	0-9	10-15	1.10-1.20	0.6-2.0	0.10-0.15	6.6-8.4	<2	Low-----	0.20	1	6	2-3
	9-16	10-15	1.10-1.20	0.6-2.0	0.06-0.12	6.6-8.4	<2	Low-----	0.10			
	16-60	0-5	1.00-1.10	>20	0.01-0.03	6.6-8.4	<2	Low-----	0.02			
523*: Charo-----	0-2	20-27	1.30-1.40	0.6-2.0	0.13-0.15	6.6-7.3	<2	Low-----	0.20	2	7	1-2
	2-28	35-60	1.35-1.45	0.06-0.2	0.15-0.18	6.6-7.8	<2	Moderate	0.28			
	28-32	---	---	---	---	---	---	---	---			
Raton-----	0-7	20-27	1.20-1.30	0.2-0.6	0.10-0.12	6.6-7.3	<2	Low-----	0.20	1	8	2-4
	7-18	35-55	1.35-1.45	0.06-0.2	0.08-0.09	6.6-7.3	<2	High-----	0.10			
	18-22	---	---	---	---	---	---	---	---			
525*: Catman-----	0-3	25-40	1.40-1.50	0.2-0.6	0.14-0.20	6.6-7.8	2-8	Moderate	0.32	5	4L	.5-.9
	3-60	60-75	1.15-1.25	<0.06	0.13-0.15	6.6-8.4	2-8	High-----	0.20			
Silkie-----	0-4	30-40	1.35-1.45	0.06-0.2	0.19-0.21	7.4-7.8	<2	Moderate	0.32	5	6	.5-.9
	4-60	35-55	1.35-1.45	<0.06	0.16-0.18	6.6-7.8	<2	High-----	0.24			
535----- Millpaw	0-3	18-25	1.15-1.25	0.6-2.0	0.16-0.18	7.4-7.8	<2	Low-----	0.37	5	6	2-3
	3-29	35-50	1.40-1.50	0.06-0.2	0.17-0.19	7.4-7.8	<2	High-----	0.32			
	29-60	18-35	1.40-1.50	0.6-2.0	0.16-0.18	7.4-8.4	<2	Moderate	0.37			
536----- McGaffey	0-3	20-27	1.25-1.35	0.6-2.0	0.17-0.19	6.6-8.4	<2	Low-----	0.43	5	6	2-3
	3-60	20-30	1.40-1.50	0.6-2.0	0.17-0.19	6.6-8.4	<2	Low-----	0.37			
537*: Millpaw-----	0-2	18-25	1.15-1.25	0.6-2.0	0.16-0.18	7.4-7.8	<2	Low-----	0.37	5	6	2-3
	2-37	35-50	1.40-1.50	0.06-0.2	0.17-0.19	7.4-7.8	<2	High-----	0.32			
	37-60	18-35	1.40-1.50	0.6-2.0	0.16-0.18	7.4-8.4	<2	Moderate	0.37			
Loarc-----	0-4	10-15	1.35-1.45	2.0-6.0	0.13-0.15	6.6-7.3	<2	Low-----	0.28	5	3	1-3
	4-60	18-35	1.40-1.50	0.6-2.0	0.14-0.16	6.6-8.4	<2	Moderate	0.32			
540----- Montecito	0-5	10-20	1.40-1.50	2.0-6.0	0.11-0.13	6.6-7.8	<2	Low-----	0.28	5	3	.5-.9
	5-30	35-50	1.35-1.45	0.2-0.6	0.15-0.17	6.6-8.4	<2	High-----	0.32			
	30-60	35-50	1.35-1.45	0.2-0.6	0.12-0.14	7.4-8.4	<2	High-----	0.15			
550*: Nogal-----	0-1	10-18	1.45-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	2	3	1-2
	1-31	35-60	1.30-1.40	0.06-0.2	0.11-0.17	6.6-8.4	<2	High-----	0.24			
	31-35	---	---	---	---	---	---	---	---			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
550*: Galestina-----	0-2	10-19	1.45-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	3	3	.5-.9
	2-7	15-30	1.25-1.35	0.6-2.0	0.16-0.18	6.6-7.8	<2	Moderate	0.37			
	7-46	35-60	1.35-1.50	0.06-0.2	0.16-0.18	6.6-7.8	<2	High-----	0.28			
	46-60	---	---	---	---	---	---	-----	---			
555*: Pinitos-----	0-2	10-18	1.45-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	5	3	.5-.9
	2-24	20-35	1.40-1.50	0.6-2.0	0.17-0.19	6.6-7.8	<2	Moderate	0.32			
	24-60	15-25	1.40-1.50	2.0-6.0	0.13-0.15	7.4-7.8	<2	Low-----	0.28			
Ribera-----	0-3	12-18	1.30-1.40	0.6-2.0	0.13-0.16	6.6-7.8	<2	Low-----	0.28	2	3	.5-1
	3-39	20-30	1.20-1.30	0.6-2.0	0.16-0.19	6.6-8.4	<2	Low-----	0.32			
	39-43	---	---	---	---	---	---	-----	---			
560*: Flugle-----	0-5	5-10	1.45-1.55	6.0-20	0.09-0.10	6.6-7.3	<2	Low-----	0.20	5	2	1-3
	5-37	20-35	1.45-1.55	0.6-2.0	0.16-0.18	6.6-8.4	<2	Moderate	0.37			
	37-60	10-20	1.45-1.55	0.6-2.0	0.11-0.13	7.4-8.4	<2	Low-----	0.24			
Teco-----	0-2	10-20	1.35-1.45	2.0-6.0	0.12-0.14	6.6-7.3	<2	Low-----	0.24	5	3	1-2
	2-18	35-45	1.45-1.55	0.2-0.6	0.15-0.18	7.4-8.4	<2	High-----	0.37			
	18-60	15-30	1.45-1.55	2.0-6.0	0.15-0.17	7.9-8.4	<2	Low-----	0.28			
561*: Flugle-----	0-2	10-17	1.35-1.45	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	5	3	1-3
	2-47	20-35	1.45-1.55	0.6-2.0	0.16-0.18	6.6-8.4	<2	Moderate	0.37			
	47-60	10-20	1.45-1.55	0.6-2.0	0.11-0.13	7.4-8.4	<2	Low-----	0.24			
Quintana-----	0-11	10-20	1.40-1.45	2.0-6.0	0.13-0.15	7.4-7.8	<2	Low-----	0.28	5	3	.5-.9
	11-46	20-35	1.35-1.40	0.6-2.0	0.14-0.16	7.9-8.4	<2	Moderate	0.32			
	46-60	10-20	1.40-1.45	2.0-6.0	0.11-0.13	7.9-8.4	<2	Low-----	0.24			
565----- Quintana	0-4	10-20	1.40-1.45	2.0-6.0	0.11-0.13	7.4-7.8	<2	Low-----	0.24	5	3	.5-.9
	4-21	20-35	1.35-1.40	0.6-2.0	0.14-0.16	7.9-8.4	<2	Moderate	0.32			
	21-60	10-20	1.40-1.45	2.0-6.0	0.11-0.13	7.9-8.4	<2	Low-----	0.24			
570*: Torreon-----	0-2	15-25	1.10-1.15	0.6-2.0	0.08-0.09	6.6-7.3	<2	Low-----	0.10	5	8	1-3
	2-25	35-50	1.25-1.30	0.06-0.2	0.14-0.16	6.6-7.8	<2	High-----	0.24			
	25-60	30-40	1.25-1.30	0.2-0.6	0.19-0.21	7.4-9.0	<2	Moderate	0.37			
Rock outcrop.												
Cabazon-----	0-3	18-27	1.25-1.40	0.6-2.0	0.09-0.11	6.1-7.8	<2	Low-----	0.10	1	8	1-2
	3-13	35-60	1.35-1.45	0.06-0.2	0.14-0.17	6.1-7.8	<2	High-----	0.24			
	13-17	---	---	---	---	---	---	-----	---			
575*: Teco-----	0-6	10-20	1.35-1.45	2.0-6.0	0.12-0.14	6.6-7.3	<2	Low-----	0.24	5	3	1-2
	6-24	35-45	1.45-1.55	0.2-0.6	0.15-0.18	7.4-8.4	<2	High-----	0.37			
	24-60	15-30	1.45-1.55	2.0-6.0	0.15-0.17	7.9-8.4	<2	Low-----	0.28			
Atarque-----	0-3	10-18	1.40-1.50	2.0-6.0	0.13-0.15	6.6-7.3	<2	Low-----	0.28	1	3	.5-.9
	3-19	24-35	1.40-1.50	0.6-2.0	0.14-0.16	6.6-7.8	<2	Moderate	0.32			
	19-23	---	---	---	---	---	---	-----	---			
576----- Teco	0-3	10-20	1.35-1.45	2.0-6.0	0.12-0.14	6.6-7.3	<2	Low-----	0.24	5	3	1-2
	3-60	35-45	1.45-1.55	0.2-0.6	0.15-0.18	7.4-8.4	<2	High-----	0.37			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist	Permea-	Available	Soil	Salinity	Shrink-	Erosion		Wind	Organic
			bulk	bility	water	reaction		swell	factors		erodi-	
			density		capacity			potential	K	T	bility	matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm				group	Pct
577*:												
Cabezon-----	0-2	18-27	1.25-1.40	0.6-2.0	0.09-0.11	6.1-7.8	<2	Low-----	0.10	1	8	1-2
	2-18	35-60	1.35-1.45	0.06-0.2	0.14-0.17	6.1-7.8	<2	High-----	0.24			
	18-22	---	---	---	---	---	---	-----	---			
Montecito-----	0-3	27-30	1.35-1.45	0.6-2.0	0.19-0.21	6.6-7.8	<2	Low-----	0.32	5	6	.5-.9
	3-24	35-40	1.45-1.55	0.2-0.6	0.19-0.21	6.6-8.4	<2	Moderate	0.32			
	24-60	35-40	1.45-1.55	0.2-0.6	0.15-0.17	7.4-8.4	<2	Moderate	0.32			
Rock outcrop.												
579*:												
Cabezon-----	0-2	10-20	1.25-1.40	2.0-6.0	0.06-0.08	6.1-7.8	<2	Low-----	0.10	1	8	1-2
	2-14	35-60	1.35-1.45	0.06-0.2	0.14-0.17	6.1-7.8	<2	High-----	0.24			
	14-18	---	---	---	---	---	---	-----	---			
Cantina-----	0-2	15-20	1.45-1.55	2.0-6.0	0.11-0.13	6.6-7.3	<2	Low-----	0.24	3	3	1-2
	2-9	20-35	1.35-1.45	0.6-2.0	0.14-0.16	6.6-7.3	<2	Moderate	0.32			
	9-31	35-55	1.35-1.45	0.06-0.2	0.15-0.17	7.4-8.4	<2	High-----	0.28			
	31-54	25-40	1.40-1.50	0.6-2.0	0.15-0.17	7.9-8.4	<2	Moderate	0.32			
	54-58	---	---	---	---	---	---	-----	---			
581*:												
Laporte-----	0-1	12-20	1.35-1.40	0.6-2.0	0.11-0.14	7.4-8.4	<2	Low-----	0.20	1	5	1-2
	1-18	15-27	1.35-1.40	0.6-2.0	0.11-0.14	7.4-8.4	<2	Low-----	0.20			
	18-22	---	---	0.00-0.2	---	---	---	-----	---			
Vessilla-----	0-6	10-20	1.45-1.55	2.0-6.0	0.11-0.13	6.6-8.4	<2	Low-----	0.24	1	3	.6-.9
	6-18	8-18	1.50-1.60	2.0-6.0	0.13-0.15	7.4-8.4	<2	Low-----	0.28			
	18-22	---	---	---	---	---	---	-----	---			
582-----	0-15	5-10	1.40-1.50	6.0-20	0.05-0.07	6.6-7.3	<2	Low-----	0.17	5	1	.5-.9
Kenray	15-60	5-12	1.55-1.65	6.0-20	0.06-0.08	6.6-7.3	<2	Low-----	0.17			
585-----	0-2	20-27	1.15-1.25	0.6-2.0	0.19-0.21	7.9-8.4	<2	Low-----	0.43	5	4L	.6-.9
Moncha	2-21	25-35	1.35-1.45	0.2-0.6	0.19-0.21	7.9-8.4	<2	Moderate	0.37			
	21-60	23-33	1.35-1.45	0.2-0.6	0.19-0.21	7.4-8.4	<2	Moderate	0.43			
586*:												
Venadito-----	0-3	30-39	1.40-1.50	0.2-0.6	0.19-0.21	7.9-8.4	<2	Moderate	0.32	5	4L	<1
	3-60	60-80	1.15-1.25	<0.06	0.14-0.16	7.9-8.4	2-4	High-----	0.20			
Teco-----	0-3	27-35	1.40-1.50	0.2-0.6	0.19-0.21	6.6-7.3	<2	Moderate	0.32	5	6	1-2
	3-60	35-45	1.45-1.55	0.2-0.6	0.15-0.18	7.4-8.4	<2	High-----	0.37			
591*:												
Valnor-----	0-2	20-35	1.35-1.45	0.2-0.6	0.19-0.21	6.6-7.3	<2	Moderate	0.32	2	6	2-4
	2-38	35-45	1.55-1.65	0.06-0.2	0.14-0.16	6.6-8.4	<2	High-----	0.32			
	38-42	---	---	---	---	---	---	-----	---			
Techado-----	0-3	29-39	1.40-1.50	0.2-0.6	0.14-0.16	6.6-7.3	<2	Moderate	0.15	1	7	.5-.9
	3-16	40-55	1.40-1.50	0.06-0.2	0.13-0.15	6.6-7.3	<2	High-----	0.20			
	16-20	---	---	---	---	---	---	-----	---			
610*:												
Grieta-----	0-8	10-20	1.45-1.55	2.0-6.0	0.11-0.13	7.4-8.4	<2	Low-----	0.24	5	3	.2-.5
	8-28	18-35	1.45-1.55	0.6-2.0	0.13-0.19	7.4-8.4	2-4	Low-----	0.32			
	28-60	5-20	1.55-1.65	2.0-6.0	0.08-0.10	7.4-8.4	2-4	Low-----	0.20			

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction pH	Salinity mmhos/cm	Shrink- swell potential	Erosion factors		Wind erodi- bility group	Organic matter Pct
									K	T		
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm					Pct
610*: Shiprock-----	0-3	10-20	1.45-1.55	2.0-6.0	0.09-0.12	7.4-8.4	<2	Low-----	0.28	5	3	.5-.6
	3-60	10-18	1.45-1.55	2.0-6.0	0.09-0.12	7.4-9.0	<4	Low-----	0.28			
611*: Grieta-----	0-3	10-20	1.45-1.55	2.0-6.0	0.11-0.13	7.4-8.4	<2	Low-----	0.24	5	3	.2-.5
	3-60	18-35	1.45-1.55	0.6-2.0	0.13-0.19	7.4-8.4	2-4	Low-----	0.32			
Kiki-----	0-6	13-19	1.45-1.55	2.0-6.0	0.11-0.13	7.4-7.8	<2	Low-----	0.24	2	3	.3-.6
	6-14	28-35	1.45-1.55	0.6-2.0	0.17-0.19	7.4-7.8	<2	Moderate	0.32			
	14-24	21-32	1.45-1.55	0.6-2.0	0.14-0.16	7.4-7.8	<2	Moderate	0.32			
	24-28	---	---	---	---	---	---	-----	---			
615*: Trag-----	0-2	15-20	1.10-1.20	0.6-2.0	0.12-0.14	6.1-7.3	<2	Low-----	0.15	5	5	2-4
	2-35	18-35	1.25-1.35	0.6-2.0	0.14-0.18	6.1-7.3	<2	Low-----	0.28			
	35-60	10-20	1.35-1.45	2.0-6.0	0.10-0.12	6.1-7.8	<2	Low-----	0.20			
Techado-----	0-2	30-40	1.40-1.50	0.2-0.6	0.12-0.17	6.6-7.3	<2	Moderate	0.15	1	8	.5-.9
	2-19	35-50	1.40-1.50	0.06-0.2	0.15-0.21	6.6-7.3	<2	High-----	0.32			
	19-38	---	---	---	---	---	---	-----	---			
	38-42	---	---	---	---	---	---	-----	---			
Rock outcrop.												
618----- Netoma	0-12	10-18	1.55-1.65	2.0-6.0	0.11-0.13	7.4-8.4	4-8	Low-----	0.24	5	3	.3-.5
	12-60	---	---	---	---	---	---	-----	---			
619----- Venadito	0-4	30-39	1.40-1.50	0.2-0.6	0.19-0.21	7.9-8.4	<2	Moderate	0.32	5	4L	<1
	4-60	60-80	1.15-1.25	<0.06	0.14-0.16	7.9-8.4	2-4	High-----	0.20			
620*: Aparejo-----	0-2	18-25	1.20-1.30	0.6-2.0	0.19-0.21	7.9-8.4	2-4	Low-----	0.43	5	4L	.5-.9
	2-18	18-35	1.20-1.30	0.2-0.6	0.19-0.21	7.9-8.4	2-4	Moderate	0.37			
	18-60	18-30	1.20-1.30	0.6-2.0	0.14-0.21	7.9-8.4	2-4	Low-----	0.32			
Venadito-----	0-3	30-39	1.40-1.50	0.2-0.6	0.19-0.21	7.9-8.4	<2	Moderate	0.37	5	4L	<1
	3-60	60-80	1.15-1.25	<0.06	0.14-0.16	7.9-8.4	2-4	High-----	0.20			
625*: Hagerman-----	0-6	10-20	1.45-1.55	2.0-6.0	0.13-0.15	6.6-7.8	<2	Low-----	0.28	2	3	.8-.9
	6-34	18-35	1.40-1.50	0.6-2.0	0.15-0.17	6.6-8.4	<2	Moderate	0.32			
	34-38	---	---	---	---	---	---	-----	---			
Bond-----	0-5	8-17	1.45-1.55	0.6-2.0	0.12-0.14	6.6-7.8	<2	Low-----	0.28	1	3	.8-1
	5-18	20-35	1.45-1.55	0.2-0.6	0.11-0.13	6.6-8.4	<2	Moderate	0.28			
	18-22	---	---	---	---	---	---	-----	---			
630*: Bond-----	0-2	8-17	1.45-1.55	0.6-2.0	0.12-0.14	6.6-7.8	<2	Low-----	0.28	1	3	.8-1
	2-19	20-35	1.45-1.55	0.2-0.6	0.11-0.13	6.6-8.4	<2	Moderate	0.28			
	19-23	---	---	---	---	---	---	-----	---			
Rizozo-----	0-2	18-27	1.25-1.35	0.6-2.0	0.15-0.17	7.4-8.4	<2	Low-----	0.43	1	4L	<1
	2-14	18-27	1.30-1.40	0.6-2.0	0.13-0.16	7.4-8.4	<2	Low-----	0.32			
	14-18	---	---	---	---	---	---	-----	---			
Rock outcrop.												

See footnote at end of table.

TABLE 13.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permea- bility	Available water capacity	Soil reaction	Salinity	Shrink- swell potential	Erosion factors		Wind erodi- bility	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH	mmhos/cm		K	T	group	Pct
640*: Flaco-----	0-2	13-26	1.50-1.60	0.6-2.0	0.13-0.15	7.9-8.4	<2	Low-----	0.37	2	4L	1-2
	2-11	18-35	1.55-1.65	0.2-0.6	0.17-0.19	7.9-8.4	<2	Moderate	0.37			
	11-29	18-30	1.55-1.65	0.6-2.0	0.15-0.17	7.9-8.4	<2	Low-----	0.32			
	29-33	---	---	---	---	---	---	---	---			
Berto-----	0-2	12-20	1.35-1.45	0.6-2.0	0.15-0.17	7.4-7.8	<2	Low-----	0.37	1	4L	1-2
	2-11	18-30	1.40-1.50	0.6-2.0	0.17-0.19	7.9-8.4	<2	Low-----	0.37			
	11-18	18-30	1.40-1.50	0.6-2.0	0.16-0.18	7.9-8.4	<2	Low-----	0.20			
	18-22	---	---	---	---	---	---	---	---			
641*: Berto-----	0-2	8-20	1.35-1.45	0.6-2.0	0.13-0.15	7.9-8.4	<2	Low-----	0.20	1	4L	1-2
	2-8	18-30	1.40-1.50	0.6-2.0	0.17-0.19	7.9-8.4	<2	Low-----	0.37			
	8-16	18-30	1.40-1.50	0.6-2.0	0.16-0.18	7.9-8.4	<2	Low-----	0.20			
	16-20	---	---	---	---	---	---	---	---			
Flaco-----	0-2	13-26	1.15-1.25	0.6-2.0	0.12-0.14	7.9-8.4	<2	Low-----	0.20	2	8	1-2
	2-9	18-35	1.20-1.30	0.2-0.6	0.17-0.19	7.9-8.4	<2	Moderate	0.37			
	9-26	18-30	1.40-1.50	0.6-2.0	0.15-0.17	7.9-8.4	<2	Low-----	0.32			
	26-30	---	---	---	---	---	---	---	---			
645*: Penistaja-----	0-3	10-20	1.35-1.45	0.6-2.0	0.13-0.15	6.6-8.4	<2	Low-----	0.28	5	3	.8-2
	3-18	20-30	1.40-1.50	0.6-2.0	0.15-0.18	6.6-8.4	<2	Low-----	0.32			
	18-60	15-25	1.20-1.30	2.0-6.0	0.12-0.15	6.6-8.4	<2	Low-----	0.28			
Oelop-----	0-3	18-27	1.20-1.30	0.6-2.0	0.16-0.18	7.4-8.4	<2	Low-----	0.37	5	6	1-2
	3-60	18-35	1.45-1.55	0.2-0.6	0.17-0.20	7.4-8.4	2-4	Moderate	0.37			
650*: Winona-----	0-3	15-25	1.20-1.30	0.6-2.0	0.09-0.10	7.4-7.8	<2	Low-----	0.10	1	6	1-2
	3-15	15-30	1.20-1.30	0.6-2.0	0.09-0.10	7.4-8.4	<2	Low-----	0.10			
	15-19	---	---	---	---	---	---	---	---			
Tanbark-----	0-2	18-27	1.40-1.50	0.6-2.0	0.13-0.16	7.4-9.0	4-8	Low-----	0.43	1	4L	.3-.5
	2-17	---	---	---	---	---	---	---	---			
	17-21	---	---	---	---	---	---	---	---			
Rock outcrop.												
660*: Rana-----	0-3	60-70	1.15-1.25	<0.06	0.08-0.10	7.9-8.4	<2	High-----	0.05	5	5	.5-.9
	3-34	65-85	1.15-1.25	<0.06	0.14-0.16	7.9-9.0	2-4	High-----	0.20			
	34-60	65-85	1.15-1.25	<0.06	0.14-0.16	8.5-9.0	2-4	High-----	0.20			
Rock outcrop.												

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 14.--SOIL AND WATER FEATURES

("Flooding" and "water table" and terms such as "rare," "brief," and "apparent" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard-ness		Uncoated steel	Concrete
10*. Lava flows												
20----- Penistaja	B	None-----	---	---	>6.0	---	---	>60	---	---	High-----	Low.
21----- Clovis	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
25*: Hickman-----	B	Occasional	Very brief	Jun-Aug	>6.0	---	---	>60	---	Low-----	High-----	Low.
Catman-----	D	Occasional	Long-----	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Moderate.
30----- Warm Springs	C	Frequent----	Brief-----	Jul-Oct	1.0-2.5	Apparent	Apr-Sep	>60	---	High-----	High-----	Moderate.
40, 41, 45----- Aparejo	B	Occasional	Very brief	Jun-Sep	>6.0	---	---	>60	---	Moderate	High-----	Low.
50, 51----- Venadito	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
52----- Venadito Variant	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	20-40	Hard	Low-----	High-----	Low.
55*: Glenberg-----	B	Occasional	Very brief	Jul-Oct	>6.0	---	---	>60	---	Low-----	High-----	Low.
San Mateo-----	B	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
56----- Mespun	A	None-----	---	---	>6.0	---	---	>60	---	Low-----	Moderate	Low.
57, 58----- San Mateo	B	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
60----- Sparank	D	Occasional	Brief-----	Jul-Oct	>6.0	---	---	>60	---	Low-----	High-----	Low.
61----- Sparham	D	Occasional	Brief-----	Jun-Aug	3.0-4.0	Apparent	Apr-Sep	>60	---	Moderate	High-----	Moderate.

See footnote at end of table.

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Risk of corrosion		
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness	Potential frost action	Uncoated steel	Concrete
62----- Sparank	D	Occasional	Brief-----	Jul-Oct	>6.0	---	---	>60	---	Low-----	High-----	Low.
66----- Zia	B	None-----	--	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
70----- Catman	D	Occasional	Long-----	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Moderate.
72----- Catman Variant	D	Occasional	Brief-----	Jun-Sep	2.0-4.0	Apparent	Apr-Sep	>60	---	High-----	High-----	Low.
73----- Catman	D	Occasional	Long-----	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Moderate.
75----- Hickman	B	Occasional	Very brief	Jun-Aug	>6.0	---	---	>60	---	Low-----	High-----	Low.
100----- Manzano	B	Occasional	Very brief	May-Oct	>6.0	---	---	>60	---	Moderate	High-----	Low.
120*: Rock outcrop.												
Laporte-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
130*: Laporte-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Rock outcrop.												
200----- Penistaja	B	None-----	---	---	>6.0	---	---	>60	---	---	High-----	Low.
205----- Ildefonso	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
210*: Bond-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Penistaja-----	B	None-----	---	---	>6.0	---	---	>60	---	---	High-----	Low.
Rock outcrop.												
218*: Viuda-----	D	None-----	---	--	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Penistaja-----	B	None-----	---	---	>6.0	---	---	>60	---	---	High-----	Low.

See footnote at end of table.

22000297

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
218*: Rock outcrop.												
230*: Dumps.												
Pits.												
251*: Skyvillage-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	Moderate	Low.
Rock outcrop.												
Bond-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
257*: Sparank-----	D	Occasional	Brief-----	Jul-Oct	>6.0	---	---	>60	---	Low-----	High-----	Low.
San Mateo-----	B	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
259----- Mikim	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
262*: Poley-----	C	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Pojoaque-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
264----- Tapia	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
270----- Charo	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
272*: Cebolleta-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Borrego-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Moderate	Moderate	Moderate.
Rock outcrop.												
276----- Trag	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
278*: Microy-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	Moderate	Low.
Rock outcrop.												

See footnote at end of table.

22000298

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
282----- Cebolleta	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
284*: Cebolleta-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Rock outcrop.												
286*: Cebolleta-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Raton-----	D	None-----	---	---	>6.0	---	---	6-20	Hard	Moderate	Moderate	Low.
290*: Paguete-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	High-----	Low.
Hackroy-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Moderate	Moderate	Low.
291----- Paguete	C	None-----	--	---	>6.0	---	---	20-40	Hard	Low-----	High-----	Low.
294*: Parkay-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
Rock outcrop.												
300----- Saladon	D	Rare-----	--	---	0-4.0	Apparent	Jun-Sep	>60	---	Moderate	Moderate	Low.
310----- Mirabal	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
315*: Abersito, cobble-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Abersito-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Rock outcrop.												
320----- Cinnadale	D	None-----	---	---	>6.0	---	---	10-20	Hard	Moderate	Moderate	Low.
325----- Moreno Variant	B	None-----	---	--	>6.0	---	---	>60	---	Moderate	Moderate	Low.
330----- Moreno	C	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.

See footnote at end of table.

22000299

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
340----- Yankee	D	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
350*: Rock outcrop.												
Stout-----	D	None-----	---	---	>6.0	---	---	6-20	Hard	Moderate	Moderate	Low.
406*: Poley-----	D	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Rock outcrop.												
407*: Viuda-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Rock outcrop.												
419----- Navajo	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
420*: Navajo-----	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
Suwanee-----	B	Occasional	Very brief	Jun-Sep	>6.0	---	---	>60	---	Moderate	High-----	Low.
424*: Mespun-----	A	None-----	---	---	>6.0	---	---	>60	---	Low-----	Moderate	Low.
Palma-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
426*: Sheppard-----	A	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Shiprock-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
432*: Winona-----	D	None-----	---	---	>6.0	---	---	5-20	Hard	Low-----	High-----	Low.
Rock outcrop.												
434*: Rizozo-----	D	None-----	---	---	>6.0	---	---	4-20	Hard	Low-----	Moderate	Low.
Rock outcrop.												
446*: Harvey-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.

See footnote at end of table.

22000300

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
446*: Oelop-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
476----- Saído	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	High.
485*: Rock outcrop.												
Mion-----	D	None-----	---	---	>6.0	---	---	10-20	Soft	Low-----	High-----	Low.
487*: Mion-----	D	None-----	---	---	>6.0	---	---	10-20	Soft	Low-----	High-----	Low.
Badland.												
500*: Timhus-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	Moderate	Low.
Bandera-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
505*: Flugle-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
Goesling-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
514*: Raton-----	D	None-----	---	---	>6.0	---	---	6-20	Hard	Moderate	Moderate	Low.
Rock outcrop.												
515*: Rock outcrop.												
Vessilla-----	D	None-----	---	---	>6.0	---	---	6-20	Soft	Low-----	High-----	Low.
Mion-----	D	None-----	---	---	>6.0	---	---	10-20	Soft	Low-----	High-----	Low.
518*: Borrego-----	D	None-----	---	---	>6.0	---	---	14-20	Hard	Moderate	Moderate	Moderate.
Charo-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Rock outcrop.												
520*: Celacy-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Low.

See footnote at end of table.

22000301

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
520*: Atarque-----	D	None-----	---	---	>6.0	---	---	8-20	Hard	Low-----	Moderate	Low.
522*: Bandera, 30 to 45 percent slopes-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
Bandera, 15 to 30 percent slopes-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
523*: Charo-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	Moderate	Low.
Raton-----	D	None-----	---	---	>6.0	---	---	6-20	Hard	Moderate	Moderate	Low.
525*: Catman-----	D	Occasional	Long-----	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Moderate.
Silkie-----	D	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
535----- Millpaw	C	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
536----- McGaffey	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
537*: Millpaw-----	C	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Loarc-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
540----- Montecito	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
550*: Nogal-----	C	None-----	---	---	>6.0	---	---	20-40	Soft	Low-----	High-----	Low.
Galestina-----	C	None-----	---	---	>6.0	---	---	40-60	Soft	Low-----	Moderate	Low.
555*: Pinitos-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
Ribera-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Low.
560*: Flugle-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.

See footnote at end of table.

22000302

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
560*: Teco-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
561*: Flugle-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
Quintana-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
565----- Quintana	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
570*: Torreon-----	D	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Rock outcrop.												
Cabazon-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	Moderate	Low.
575*: Teco-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Atarque-----	D	None-----	---	---	>6.0	---	---	8-20	Hard	Low-----	Moderate	Low.
576----- Teco	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
577*: Cabazon-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	Moderate	Low.
Montecito-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Rock outcrop.												
579*: Cabazon-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	Moderate	Low.
Cantina-----	C	None-----	---	---	>6.0	---	---	40-60	Hard	Low-----	High-----	Low.
581*: Laporte-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Vessilla-----	D	None-----	---	---	>6.0	---	---	6-20	Soft	Low-----	High-----	Low.
582----- Kenray	A	None-----	---	---	>6.0	---	---	>60	---	Low-----	Moderate	Low.
585----- Moncha	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.

See footnote at end of table.

22000303

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
586*: Venadito-----	D	Occasional	Very brief	Jul-Sep	>6.0	--	---	>60	---	Low-----	High-----	Low.
Teco-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
591*: Valnor-----	C	None-----	---	---	>6.0	---	---	20-40	Soft	Low-----	High-----	Low.
Techado-----	D	None-----	---	---	>6.0	---	---	10-20	Soft	Low-----	Moderate	Low.
610*: Grieta-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
Shiprock-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
611*: Grieta-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	High-----	Low.
Kiki-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Low.
615*: Trag-----	B	None-----	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
Techado-----	D	None-----	---	---	>6.0	---	---	10-20	Soft	Low-----	Moderate	Low.
Rock outcrop.												
618----- Netoma	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	High.
619----- Venadito	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
620*: Aparejo-----	B	Occasional	Very brief	Jun-Sep	>6.0	---	---	>60	---	Moderate	High-----	Low.
Venadito-----	D	Occasional	Very brief	Jul-Sep	>6.0	---	---	>60	---	Low-----	High-----	Low.
625*: Hagerman-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Low-----	High-----	Low.
Bond-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
630*: Bond-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	Low.
Rizozo-----	D	None-----	---	---	>6.0	---	---	4-20	Hard	Low-----	High-----	Low.

See footnote at end of table.

22000304

TABLE 14.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro- logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth Ft	Kind	Months	Depth In	Hard- ness		Uncoated steel	Concrete
630*: Rock outcrop.												
640*: Flaco-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Low.
Berto-----	D	None-----	---	---	>6.0	---	---	11-20	Hard	Moderate	High-----	Low.
641*: Berto-----	D	None-----	---	---	>6.0	---	---	11-20	Hard	Moderate	High-----	Low.
Flaco-----	C	None-----	---	---	>6.0	---	---	20-40	Hard	Moderate	High-----	Low.
645*: Penistaja-----	B	None-----	---	---	>6.0	---	---	>60	---	---	High-----	Low.
Oelop-----	B	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
650*: Winona-----	D	None-----	---	---	>6.0	---	---	5-20	Hard	Low-----	High-----	Low.
Tanbark-----	D	None-----	---	---	>6.0	---	---	10-20	Hard	Low-----	High-----	High.
Rock outcrop.												
660*: Rana-----	D	None-----	---	---	>6.0	---	---	>60	---	Low-----	High-----	Low.
Rock outcrop.												

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--CLASSIFICATION OF THE SOILS

(An asterisk in the first column indicates that the soil is a taxadjunct to the series. See text for a description of those characteristics of the soil that are outside the range of the series)

Soil name	Family or higher taxonomic class
Abersito-----	Clayey-skeletal, mixed Mollic Eutroboralfs
Aparejo-----	Fine-loamy, mixed (calcareous), mesic Typic Ustifluvents
Atarque-----	Loamy, mixed, mesic Lithic Haplustalfs
Bandera-----	Loamy-skeletal over fragmental, mixed Entic Haploborolls
Berto-----	Loamy, mixed, mesic Lithic Ustollic Haplargids
Bond-----	Loamy, mixed, mesic Lithic Ustollic Haplargids
*Borrego-----	Clayey, mixed Lithic Eutroboralfs
Cabezón-----	Clayey, montmorillonitic, mesic Lithic Argiustolls
Cantina-----	Fine, mixed, mesic Aridic Argiustolls
Catman-----	Very fine, montmorillonitic, mesic Udorthentic Chromusterts
Catman Variant-----	Very fine, montmorillonitic, mesic Mollic Ustifluvents
Cebolleta-----	Clayey-skeletal, mixed Typic Argiborolls
Celacy-----	Fine-loamy, mixed, mesic Aridic Haplustalfs
Charo-----	Fine, mixed Typic Argiborolls
Cinnadale-----	Loamy-skeletal, mixed, frigid Lithic Ustochrepts
*Clovis-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Flaco-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Flugle-----	Fine-loamy, mixed, mesic Aridic Haplustalfs
Galestina-----	Fine, mixed, mesic Aridic Paleustalfs
Glenberg-----	Coarse-loamy, mixed (calcareous), mesic Ustic Torrifluvents
Goesling-----	Fine-loamy, mixed, mesic Aridic Haplustalfs
Grieta-----	Fine-loamy, mixed, mesic Typic Haplargids
Hackroy-----	Clayey, mixed, mesic Lithic Haplustalfs
Hagerman-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Harvey-----	Fine-loamy, mixed, mesic Ustollic Calciorrhids
Hickman-----	Fine-loamy, mixed (calcareous), mesic Typic Ustifluvents
*Ildefonso-----	Loamy-skeletal, mixed, mesic Ustollic Calciorrhids
Kenray-----	Mixed, frigid Typic Ustipsamments
Kiki-----	Fine-loamy, mixed, mesic Typic Haplargids
Laporte-----	Loamy, carbonatic, mesic Lithic Haplustolls
Loarc-----	Fine-loamy, mixed, mesic Aridic Argiustolls
*Manzano-----	Fine-loamy, mixed, mesic Cumulic Haplustolls
McGaffey-----	Fine-loamy, mixed Cumulic Haploborolls
Mespun-----	Mixed, mesic Ustic Torripsamments
Microy-----	Fine, mixed Typic Argiborolls
Mikim-----	Fine-loamy, mixed (calcareous), mesic Ustic Torriorthents
Millpaw-----	Fine, mixed, mesic Pachic Argiustolls
Mion-----	Clayey, mixed (calcareous), mesic, shallow Ustic Torriorthents
Mirabal-----	Loamy-skeletal, mixed, nonacid, frigid Typic Ustorthents
Moncha-----	Fine-silty, mixed, mesic Aridic Haplustalfs
Montecito-----	Fine, mixed, mesic Aridic Haplustalfs
Moreno-----	Fine, mixed Typic Argiborolls
Moreno Variant-----	Fine-loamy, mixed Mollic Eutroboralfs
Navajo-----	Fine, mixed (calcareous), mesic Vertic Torrifluvents
Netoma-----	Coarse-loamy, gypsic, mesic Typic Gypsiorthids
Nogal-----	Fine, mixed, mesic Aridic Haplustalfs
Oelop-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Paguete-----	Fine, mixed, mesic Aridic Haplustalfs
Palma-----	Coarse-loamy, mixed, mesic Ustollic Haplargids
Parkay-----	Loamy-skeletal, mixed Argic Pachic Cryoborolls
Penistaja-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Pinitos-----	Fine-loamy, mixed, mesic Aridic Haplustalfs
Pojoaque-----	Fine-loamy, mixed (calcareous), mesic Ustic Torriorthents
Poley-----	Fine, mixed, mesic Ustollic Haplargids
*Quintana-----	Fine-loamy, mixed, mesic Typic Ustochrepts
Rana-----	Very fine, montmorillonitic (calcareous), mesic Ustertic Torriorthents
Raton-----	Clayey-skeletal, mixed Lithic Argiborolls
Ribera-----	Fine-loamy, mixed, mesic Aridic Haplustalfs
*Rizozo-----	Loamy, mixed (calcareous), mesic Lithic Ustic Torriorthents
Saído-----	Coarse-silty, gypsic, mesic Typic Gypsiorthids

TABLE 15.--CLASSIFICATION OF THE SOILS--Continued

Soil name	Family or higher taxonomic class
*Saladon-----	Fine, montmorillonitic Typic Cryaquolls
San Mateo-----	Fine-loamy, mixed (calcareous), mesic Ustic Torrifluvents
Sheppard-----	Mixed, mesic Typic Torripsamments
Shiprock-----	Coarse-loamy, mixed, mesic Typic Haplargids
Silkie-----	Fine, mixed, mesic Vertic Haplustalfs
Skyvillage-----	Loamy, mixed (calcareous), mesic Lithic Ustic Torriorthents
Sparank-----	Fine, mixed (calcareous), mesic Ustic Torrifluvents
Sparham-----	Fine, mixed (calcareous), mesic Typic Ustifluvents
Stout-----	Loamy, mixed, nonacid, frigid Lithic Ustorthents
Suwanee-----	Fine-loamy, mixed (calcareous), mesic Ustic Torrifluvents
Tanbark-----	Loamy, gypsic, mesic, shallow Ustic Torriorthents
Tapia-----	Fine-loamy, mixed, mesic Ustollic Haplargids
Techado-----	Clayey, mixed, nonacid, frigid, shallow Typic Ustorthents
Teco-----	Fine, mixed, mesic Aridic Haplustalfs
Timbus-----	Loamy-skeletal over fragmental, mixed, mesic Aridic Ustochrepts
Torreon-----	Fine, montmorillonitic, mesic Aridic Argiustolls
*Trag-----	Fine-loamy, mixed Typic Argiborolls
Valnor-----	Fine, mixed Mollic Eutroboralfs
Venadito-----	Very fine, montmorillonitic, mesic Udorthentic Chromusterts
Venadito Variant-----	Very fine, montmorillonitic, mesic Udic Chromusterts
Vessilla-----	Loamy, mixed (calcareous), mesic Lithic Ustorthents
Viuda-----	Clayey, mixed, mesic Lithic Ustollic Haplargids
Warm Springs-----	Fine-loamy, mixed, mesic Aquic Calciustolls
Winona-----	Loamy-skeletal, carbonatic, mesic Lithic Ustollic Calciorthids
*Yankee-----	Fine, mixed Vertic Argiborolls
Zia-----	Coarse-loamy, mixed (calcareous), mesic Ustic Torriorthents

*U.S. G.P.O.:1993-341-646:80003/SCS

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MABLE/Geocorr2K: Geographic Correspondence Engine with Census 2000 Geography

Version 1.3.2 (October, 2009)

[MABLE/Geocorr tutorial](#) (ppt presentation).

This application accesses the MABLE2k data base (rev. 3/09) with 2000 (and later) geographic codes. Generates "correlation list" reports / files.

Links: [Cure for Common Codes](#) (related app) | [What's new in Version 1.3](#) | [Previous Version \(with 1990 vintage geos\)](#)

Note: The [Help](#) and [Examples](#) pages have not been updated for the new 2k version. *Most* of what was true then still applies.

This form has 5 main sections. Only the first 2 are required.

[Input](#) | [Output](#) | [Geographic Filter](#) | [Point & Distance](#) | [Bounding Box](#)

Input Options

Select state(s) to process.

Missouri
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
District Of Columbia

For background info re the geocodes used in the MABLE database (Source/Target geocodes) see the revised *Master Area Geographic Glossary Of Terms*:
[NEW! MAGGOT file](#). (Revised version now complete)

Select 1 or more "SOURCE" Geocode(s)

Select 1 or more "TARGET" Geocode(s)

Entire Universe [no code]
State (2000)
County (2000)
County (2002)
County Subdivision: MCD (2000)
Place: City, Town, Village, etc. (2000)
Census Tract (2000)
Census Block Group (2000)
Census Block (2000)(+)
5-digit ZIP (ZCTA-ZIP Census Tab. Area 2000)
Concentric Ring Pseudo-Geocode (*)
Urban-Rural Portion (2000)
Urbanized Area/Urban Cluster (2000)
PUMA for 5 Pct Samples (2000)

Entire Universe [no code]
State (2000)
County (2000)
County (2002)
County Subdivision: MCD (2000)
Place: City, Town, Village, etc. (2000)
Census Tract (2000)
Census Block Group (2000)
Census Block (2000)(+)
5-digit ZIP (ZCTA-ZIP Census Tab. Area 2000)
Concentric Ring Pseudo-Geocode (*)
Urban-Rural Portion (2000)
Urbanized Area/Urban Cluster (2000)
PUMA for 5 Pct Samples (2000)

Notes:

- Process time for large areas/many states may be several minutes. IE users see [microsoft note](#) on how to avoid having your browser time out.

+ If you chose census block then you may not choose more than 10 states.

* If you chose "Concentric Ring Pseudo-Geocode" from either list (above) then you **must** specify the "Point and Distance" **or** "Ring Geocode" options below.

Weighting Variable:

Specify the variable to use for determining the portion of the source geocodes corresponding to the target geocodes:

☒ Ignore Census Blocks with a value of 0 for the weighting variable. [NEW!](#) (now

Population (2000 census)
 Population (2008 est. - see note below)
 Land Area (square miles)
 Housing Units (2000 census)

defaults to checked).

Note: Do NOT use the 2008 estimate as weighting variable when working with small (sub-county) geographic areas. The '08 estimate for each block is just the pop2k value multiplied by a county-based change-in-pop factor. .

• Output Options

☐ Have weighted centroids calculated and kept on the output file(s)

☐ Generate 2nd allocation factor (AFACT2):
 portion of *target* geocodes in *source* geocodes

☐ Sort by target geocodes, then source geocodes (default is by source, then target)

You have your choice of 2 output formats: a comma-separated-value (".csv") file **and/or** a report format ("listing") file. For each file you can specify whether you want just the geographic codes, or the codes *and* the names associated with them (where applicable), or just the names.

Comma Separated Value File

Listing File

☒ Generate a CSV file ☐ Use tabs as delimiter

☒ Generate a listing file Format: Plain text ▾

Just Codes (No Names)
 Codes and Names
 Just Names (No Codes)

Just Codes (No Names)
 Codes and Names
 Just Names (No Codes)

(Optional) Title for output report:

Reset Defaults

Run Request

Processing time for large areas may be several minutes.

• Geographic Filtering Options

NOTE: This section allows you to specify options that will limit the geographic universe to be processed. If you just want to process the entire state(s) that you have selected then you can ignore this section.

You can specify any or all of 4 types of geography to limit the universe to be processed. You may, for example, only want to see a file with geography for a set of counties, or for a specific metro area (or areas), or possibly for a city (place). You can do so by entering the appropriate FIPS (Federal Information Processing Standard) codes in the text entry boxes that follow. If you need to look up the codes you can click on the links to the code-list files in each section or use the [Cure for the Common Codes](#) web app.

By default, if you specify more than one kind of geography here then the application assumes that you want to "and" the selections, keeping only areas that satisfy all criteria. For example, if you specified three counties and a metro area, you would only get data based on blocks that were in **both** the counties and the metro area (i.e. the intersection of the selected areas.) To override this default and choose geographies that satisfy *any* (rather than *all*) of your select criteria -- **click here:** ☐

All selections made below are in addition to the state-level or distance-based filtering which you specify

[County codes](#). Enter 5-digit FIPS county codes with leading zeroes separated by blanks. You may enter 3-digit codes if you selected only one state. Your output will be limited to the counties specified.

Examples:

- 29189 29510 17163 17119 (selects 4 counties in 2 states)
- 005 017 049 (selects 3 counties from the single state selected)

[Metro Area codes](#). Enter 4-digit FIPS metro area codes with leading zeroes separated by blanks. MSA, CMSA and PMSA codes may be used (4-digit only).

The 2000 definitions will be used. Your output will be limited to the metro areas specified. New England NECMA codes can **not** be used.

A code of 9999 can be entered to select non-metro areas (alone or as part of a list of metro area codes). **Enter -9999 to specify that you want to exclude all non-metro areas.** The -9999 code must be entered as the entire value for the list.

NEW! Alternatively, you can now (as of 9/05) enter **5-digit Core-Based Statistical Area** codes here to filter based on these more current and more inclusive (they include **micropolitan** as well as metropolitan) areas. You can use the special value **-99999** to select only those places which are outside any metro or micropolitan area. See the [Common Codes](#) web app and select a state to obtain these codes. Examples:

- 3760 1602 (Selects Kansas City MSA and Chicago CMSA)
- -9999 (Selects only areas that were within a metro area as of 2000)
- 27620 42740 (Selects the Jefferson City Metropolitan and Sedalia Micropolitan Statistical Areas (MO))

[Urbanized Area](#) and [Urban Clusters](#). Enter 5-digit FIPS urbanized area or urban cluster codes with leading zeroes separated by blanks. Your output will be limited to the UA/UC areas (which are mutually exclusive) specified. **Enter -9999 to specify that you want to exclude all non-urban (i.e., rural) areas.** The -9999 code must be entered as the entire value for the list. Examples:

- 00415 02062 (Selects the Ada, OK Urban Cluster and the Ann Arbor, MI Urbanized Area. Only works if you have also selected the appropriate 2 states).
- -9999 (Selects only areas that are urban, using the new 2000 census definition)

[Place codes](#). Enter 7-digit FIPS place codes with leading zeroes separated by blanks. You can enter 5-digit codes if only one state has been selected. Your output will be limited to the official city limits of these cities as of the 2000 census.

Enter a value of -9999 to indicate that you want to exclude all areas that are not inside any place. You will get all areas that are either incorporated or within a Census Designated Place.

Examples:

- 70520 70545 70550 53780 06020
(Saginaw City, Saginaw Township North and South, Midland, Bay City, MI)
- -9999

You will get output that excludes any geographic area not included within a place.

[Reset Defaults](#)
[Run Request](#)

• Point-and-Distance Options

Specify a point (location) and distance to be used as filter:

Value for radius of Circle **or** radius of largest Ring: (In miles, unless you check ☐ here to specify kilometers.)

(See just [below](#) for links to help find coordinates.)

Coordinates of Point: 35.11855 degrees latitude, 107.34508 degrees longitude.

Label of Point: (optional)

Define Ring criteria specifying only one of the following two options:

Either: # of equi-distant rings (integer value between 1 and 10). Radius specified above will be divided by this to derive width of each Ring.

Or: Specify your own custom list of up to 10 ring radii values in ascending order (values must be greater than zero, may be fractional, and largest should equal the radius of the Circle specified above):

#1 0.25 #2 0.5 #3 1 #4 2 #5 3
#6 4 #7 #8 #9 #10

Links are provided here to facilitate obtaining coordinates for your location. See the [HELP](#) file for more detailed information.

- The [ETAK Eagle geocoder](#) site lets you enter a street address or street intersection. It displays the coordinates as well as a long list of geographic codes (and will also draw you a map of the area about the point.) **NOTE: As of late 2006 this site requires you to register before you can use it. The name "ETAK" is nowhere to be found either.**

- An alternate site for street addresses is the [Melissa U.S Address Lookup](#). There is a limit on the number of lookups you can do here. (around 20)
- To get the coordinates of any ZIP code or named place use the Census Bureau's [Gazetteer](#) application.
- To view the region of interest try the [Reference Maps](#) feature of [American Fact Finder](#) at the Census Bureau.
- View county names on state level maps, check the Census Bureau's [Map Stats](#)

Note: If you specify a lat-long location the variable "distance" will be added to your output. This requires that weighted centroids also be calculated (set automatically). The "distance" variable will be between the weighted centroid and the specified Point. If you specify Ring Pseudo-Geocodes then distance and weighted centroid values will *not* be calculated or stored (because weighted centroids of donuts are misleading).

Bounding Box Filter Option

If you want to limit processing to blocks with center points that fall in a specified rectangular area you can enter the coordinates for such a "bounding box" next.

Define the "bounding box" coordinates in decimal degrees:

<input type="text"/>	Northern-most Latitude	<input type="text"/>	Southern-most Latitude
<input type="text"/>	Western-most Longitude	<input type="text"/>	Eastern-most Longitude

Internal use only (ignore):

Please direct all questions and comments to [John Blodgett](#) at OSEDA.

Last Modified: 10/26/2009 14:21:20

MABLE/Geocorr2K Results

geocorr2k 1.3 Rev. 2/18/2008 9:28:05 AM Processing started at OSEDA/MCDC/Univ. of Missouri at 15:10:21 on 27OCT09 (CDT)

Job id: 27OCT1510551

Requested states to be processed: 35 New Mexico

Source geocodes requested: county tract bg

Target geocodes requested: ring

Output will show how combinations of the source geocodes you have chosen relate to the chosen target geocodes.

Blocks will be selected only if within a distance of less than 4 miles from a user-specified point labeled: **Specified Point**, with coordinates: **longitude 107.34508 ,latitude 35.11855**.

User has specified ring pseudo-geographic areas with the following outer diameters (ring geocode added to outputs):

0.25 miles

0.5 miles

1 miles

2 miles

3 miles

4 miles

Specs appear to be valid...request being processed. Please be patient.

22 census blocks selected and will be processed to create output files...

Phase 1 processing complete. Elapsed time: 3 seconds.

Phase 2 (invoking corrwrt macro) completed...

Listing output file has been generated.

Comma-delimited output file has been generated.

4 observations on output correlation list.

Output Files

[Listing \(report format\)](#)

[Comma delimited \("csv"\) file](#)

Processing ended at 15:10:25 on 27OCT09 (CDT)

Total elapsed time: 4 seconds.

Thank you for using MABLE/Geocorr2K.

Listing of Geographic Correlations

county	tract	Ring bg	Total Pop, 2000 Area	bg to ring alloc census	factor
35006	9401.00	1 4	3 54	420 0.114	0.886
35006	9401.00	2	4	24	1.000
35006	9745.00	3	4	2	1.000

Report Produced on 27OCT09 by geocorr2k 1.3 Rev. 2/18/2008 9:28:05 AM

Geocorr Population Ring Totals

Latitude: 35.11855 N

Longitude: -107.34508 W

COUNTY	TRACT	BG	RING AREA (miles)	TOTAL POP, 2000 CENSUS	BG TO RING ALLOC FACTOR
			0.25		
			0.5		
			1		
			2		
35006	9401	1	3	420	0.886
			Ring total	420	
35006	9401	1	4	54	0.114
35006	9401	2	4	24	1
35006	9745	3	4	2	1
			Ring total	80	
			Four Mile Total	500	

Weather station **LAGUNA, CIBOLA COUNTY** is at about 35.03°N 107.36°W. Height about 1773m / 5817 feet above sea level.

Average Rainfall

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
mm	9.7	8.7	9.9	10.1	14.3	15.1	42.5	49.1	33.3	27.2	9.3	10.8	240.9
inches	0.4	0.3	0.4	0.4	0.6	0.6	1.7	1.9	1.3	1.1	0.4	0.4	9.5

Source: LAGUNA, CIBOLA COUNTY data derived from [NCDC Cooperative Stations](#). 37 complete years between 1931 and 1995

[Map of the area around LAGUNA, CIBOLA COUNTY](#) from [tiger.census.gov](#).
Locations outside the continental US are not mapped.

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Weather station **LAGUNA, CIBOLA COUNTY** is at about 35.03°N 107.36°W. Height about 1773m / 5817 feet above sea level.

Average Maximum Temperature

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
°C	8.7	12.0	15.8	21.2	25.9	31.5	32.7	30.8	27.2	21.7	14.8	9.7	21.0
°F	47.7	53.6	60.4	70.2	78.6	88.7	90.9	87.4	81.0	71.1	58.6	49.5	69.8

Source: LAGUNA, CIBOLA COUNTY data derived from [NCDC TD 9641 Clim 81 1961-1990 Normals](#). 30 years between 1961 and 1990

[Map of the area around LAGUNA, CIBOLA COUNTY](#) from tiger.census.gov.

Locations outside the continental US are not mapped.

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Weather station **LAGUNA, CIBOLA COUNTY** is at about 35.03°N 107.36°W. Height about 1773m / 5817 feet above sea level.

Average Minimum Temperature

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
°C	-6.9	-4.5	-2.1	1.2	6.0	11.1	15.0	14.2	9.8	3.1	-2.0	-6.3	3.2
°F	19.6	23.9	28.2	34.2	42.8	52.0	59.0	57.6	49.6	37.6	28.4	20.7	37.8

Source: LAGUNA, CIBOLA COUNTY data derived from [NCDC TD 9641 Clim 81 1961-1990 Normals](#). 30 years between 1961 and 1990

[Map of the area around LAGUNA, CIBOLA COUNTY](#) from [tiger.census.gov](#).
Locations outside the continental US are not mapped.

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APPENDIX C

**START-3 TECHNICAL DIRECTION DOCUMENT (TDD) NO. TO-0019-09-10-01 AND
AMENDMENTS A - C**



U.S. EPA
Washington, DC 20460

START3
Technical Direction Document

TDD #: TO-0019-09-10-01
Contract: EP-W-06-042

Assessment/Inspection Activities
(CERCLA PIPELINE FUNDS - FOR
SITE ASSESSMENT GROUP USE) (
0019)
Weston Solutions, Inc.

! = required field

TDD Name: Jackpile-Paguate Uranium Mine		! Period: Base Period	
! Purpose: Work Assignment Initiation			
! Priority: High		! Start Date: 10/13/2009	
Overtime: Yes		! Completion Date: 02/15/2010	
! Funding Category: Removal		Invoice Unit:	
! Project/Site Name: Jackpile-Paguate Uranium Mine		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES	
Project Address: SR 279, Near Paguate, Laguna Pueblo		Activity: Preliminary Assessment (PA)	
County: Cibola		Work Area Code:	
City, State: PaguateNew Mexico,		Activity Code: RS	
Zip:		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6T3		FPN:	
CERCLIS: NMN000607033		Performance Based: No	
Operable Unit:			
Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)	
Previous Action(s):	\$0.00	0.0	
This Action:	\$15,000.00	0.0	
New Total:	\$15,000.00	0.0	

Specific Elements Perform PA activities in accordance with EPA OSWER Directive 9345.0-01A EPA OSWER Directive 9375.2-09FS and the NCP.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Conduct Preliminary Assessment of the Jackpile-Paguate Mine

The contractor shall develop a work plan/cost estimate for completing a Preliminary Assessment (PA) at the Jackpile Paguate Mine in Paguate, on Laguna Pueblo. Specific tasks in the work plan/cost estimate shall include:

1. Management/Cost Estimate;
2. File Review;
3. Site Reconnaissance;
4. Data Collection/PA Report

In addition to developing a work plan/cost estimate, the contractor shall conduct a review of all available regulatory files associated with the site. The purpose of the file review is to obtain information concerning site operations, waste types and quantities, regulatory history, past environmental violations, and citizen

complaints.

A site reconnaissance shall be conducted for the site. The purpose of a site reconnaissance is to visually observe the site and its environs and to collect additional information to assist the PA evaluation. The recon shall be coordinated with the WAM and the WAM will accompany the contractor during all site recon activities. All contact with the Pueblo of Laguna shall be coordinated with the EPA WAM.

A PA report shall be developed for the site. The PA report shall be developed according to the EPA guidance for performing preliminary assessments (EPA540-G-91-013, Publication 9345.0-01A). A draft PA report for the site shall be submitted to EPA for review no later than February 1, 2010.

All activities shall be coordinated with the EPA WAM, Brenda Nixon Cook (214-665-7436). The START contractor shall contact Brenda Nixon Cook upon receipt of this TDD.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	PLC036	XXX	09	T	6A00P	302DD2C	2505	A6T3RS00	C001	\$15,000.00

Funding Summary:		Funding
Previous:		\$0.00
This Action:		\$15,000.00
Total:		\$15,000.00

Funding Category

Removal

Section

: Brenda Cook Date: 10/09/2009

Project Officer Section

Project Officer: Linda Carter Date: 10/13/2009

Contracting Officer Section

Contracting Officer: Cora Stanley Date: 10/13/2009

Contractor Section - Signed by Cecilia Shappee/start6/rfw-start/us on 10/14/2009 10:42:24 AM, accord

☒ No During the past three (3) calendar years has your company, or any of your employees
☐ Yes that will be working at this site, previously performed work at this site/facility?

Contractor Contact: Cecilia Shappee Date: 10/14/2009

START3
Technical Direction Document

TDD #: TO-0019-09-10-01
Amendment#: A
Contract: EP-W-06-042

Assessment/Inspection Activities
(CERCLA PIPELINE FUNDS - FOR
SITE ASSESSMENT GROUP USE) (0019)
Weston Solutions, Inc.

! = required field

TDD Name: Jackpile-Paguate Uranium Mine		! Period: Base Period
! Purpose: Change Period of Performance		
! Priority: High	! Start Date: 10/13/2009	
Overtime: Yes	! Completion Date: 04/30/2010	
! Funding Category: Removal	Invoice Unit:	
! Project/Site Name: Jackpile-Paguate Uranium Mine		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES
Project Address: SR 279, Near Paguate, Laguna Pueblo		Activity: Preliminary Assessment (PA)
County: Cibola	Work Area Code:	
City, State: PaguateNew Mexico,	Activity Code: RS	
Zip:	EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6T3	FPN:	
CERCLIS: NMN000607033	Performance Based: No	
Operable Unit:		
Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	\$15,000.00	0.0
This Action:	\$0.00	0.0
New Total:	\$15,000.00	0.0

Specific Elements Perform PA activities in accordance with EPA OSWER Directive 9345.0-01A EPA OSWER Directive 9375.2-09FS and the NCP.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment A changes completion date to April 30, 2010. There is no increase in cost/fee.

Conduct Preliminary Assessment of the Jackpile-Paguate Mine

The contractor shall develop a work plan/cost estimate for completing a Preliminary Assessment (PA) at the Jackpile Paguate Mine in Paguate, on Laguna Pueblo. Specific tasks in the work plan/cost estimate shall include:

1. Management/Cost Estimate;
2. File Review;
3. Site Reconnaissance;
4. Data Collection/PA Report

In addition to developing a work plan/cost estimate, the contractor shall conduct a review of all available regulatory files associated with the site. The purpose of the file review is to obtain information concerning site operations, waste types and quantities, regulatory history, past environmental violations, and citizen

complaints.

A site reconnaissance shall be conducted for the site. The purpose of a site reconnaissance is to visually observe the site and its environs and to collect additional information to assist the PA evaluation. The recon shall be coordinated with the WAM and the WAM will accompany the contractor during all site recon activities. All contact with the Pueblo of Laguna shall be coordinated with the EPA WAM.

A PA report shall be developed for the site. The PA report shall be developed according to the EPA guidance for performing preliminary assessments (EPA540-G-91-013, Publication 9345.0-01A). A draft PA report for the site shall be submitted to EPA for review no later than February 1, 2010.

All activities shall be coordinated with the EPA WAM, Brenda Nixon Cook (214-665-7436). The START contractor shall contact Brenda Nixon Cook upon receipt of this TDD.

Accounting and Appropriation Information

SFO:

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1										\$0.00

Funding Summary:		Funding
Previous:		\$15,000.00
This Action:		\$0.00
Total:		\$15,000.00

Funding Category

Removal

Section

- Signed by Brenda Cook/R6/USEPA/US on 02/04/2010 02:46:03 PM, according to Cheng Wei Feng/start
: Brenda Cook Date: 02/04/2010

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 02/04/2010 03:46:56 PM, according to C
Project Officer: Linda Carter Date: 02/04/2010

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 02/04/2010 03:46:56 PM, according
Contracting Officer: Cora Stanley Date: 02/04/2010

Contractor Section

Contractor Contact: Date:

START3
Technical Direction Document

TDD #: TO-0019-09-10-01
Amendment#: B
Contract: EP-W-06-042

Assessment/Inspection Activities
(CERCLA PIPELINE FUNDS - FOR
SITE ASSESSMENT GROUP USE) (0019)
Weston Solutions, Inc.

! = required field

TDD Name: Jackpile-Paguate Uranium Mine		! Period: Base Period
! Purpose: Change Period of Performance		
! Priority: High	! Start Date: 10/13/2009	
Overtime: Yes	! Completion Date: 05/30/2010	
! Funding Category: Removal	Invoice Unit:	
! Project/Site Name: Jackpile-Paguate Uranium Mine		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES
Project Address: SR 279, Near Paguate, Laguna Pueblo		Activity: Preliminary Assessment (PA)
County: Cibola	Work Area Code:	
City, State: PaguateNew Mexico,	Activity Code: RS	
Zip:	EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6T3	FPN:	
CERCLIS: NMN000607033	Performance Based: No	
Operable Unit:		
Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	\$15,000.00	0.0
This Action:	\$0.00	0.0
New Total:	\$15,000.00	0.0

Specific Elements Perform PA activities in accordance with EPA OSWER Directive 9345.0-01A EPA OSWER Directive 9375.2-09FS and the NCP.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment B changes completion date to May 30, 2010. There is no increase in cost/fee.

Amendment A changes completion date to April 30, 2010. There is no increase in cost/fee.

Conduct Preliminary Assessment of the Jackpile-Paguate Mine

The contractor shall develop a work plan/cost estimate for completing a Preliminary Assessment (PA) at the Jackpile Paguate Mine in Paguate, on Laguna Pueblo. Specific tasks in the work plan/cost estimate shall include:

1. Management/Cost Estimate;
2. File Review;
3. Site Reconnaissance;
4. Data Collection/PA Report

In addition to developing a work plan/cost estimate, the contractor shall conduct a review of all available regulatory files associated with the site. The purpose of the file review is to obtain information concerning site operations, waste types and quantities, regulatory history, past environmental violations, and citizen

complaints.

A site reconnaissance shall be conducted for the site. The purpose of a site reconnaissance is to visually observe the site and its environs and to collect additional information to assist the PA evaluation. The recon shall be coordinated with the WAM and the WAM will accompany the contractor during all site recon activities. All contact with the Pueblo of Laguna shall be coordinated with the EPA WAM.

A PA report shall be developed for the site. The PA report shall be developed according to the EPA guidance for performing preliminary assessments (EPA540-G-91-013, Publication 9345.0-01A). A draft PA report for the site shall be submitted to EPA for review no later than February 1, 2010.

All activities shall be coordinated with the EPA WAM, Brenda Nixon Cook (214-665-7436). The START contractor shall contact Brenda Nixon Cook upon receipt of this TDD.

Accounting and Appropriation Information

SFO:

Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1										\$0.00

Funding Summary:	Funding
Previous:	\$15,000.00
This Action:	\$0.00
Total:	\$15,000.00

Funding Category

Removal

Section

- Signed by Brenda Cook/R6/USEPA/US on 04/23/2010 08:37:03 AM, according to Cheng Wei Feng/start
: Brenda Cook Date: 04/23/2010

Project Officer Section - Signed by Cora Stanley/R6/USEPA/US on 04/23/2010 11:46:32 AM, according to C
Project Officer: Linda Carter Date: 04/23/2010

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 04/23/2010 11:46:32 AM, according
Contracting Officer: Cora Stanley Date: 04/23/2010

Contractor Section

Contractor Contact: Date:

EPAU.S. EPA
Washington, DC 20460**START3**
Technical Direction DocumentAssessment/Inspection Activities
(CERCLA PIPELINE FUNDS - FOR
SITE ASSESSMENT GROUP USE) (
0019)
Weston Solutions, Inc.TDD #: TO-0019-09-10-01
Amendment#: C
Contract: EP-W-06-042

! = required field

TDD Name: Jackpile-Paguate Uranium Mine		! Period: Base Period
! Purpose: Change Period of Performance		
! Priority: High	! Start Date: 10/13/2009	
Overtime: Yes	! Completion Date: 08/16/2010	
! Funding Category: Removal	Invoice Unit:	
! Project/Site Name: Jackpile-Paguate Uranium Mine		
		WorkArea: ASSESSMENT/INSPECTIONS ACTIVITIES
Project Address: SR 279, Near Paguate, Laguna Pueblo		Activity: Preliminary Assessment (PA)
County: Cibola		Work Area Code:
City, State: PaguateNew Mexico,		Activity Code: RS
Zip:	EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT	
! SSID: A6T3	FPN:	
CERCLIS: NMN000607033		Performance Based: No
Operable Unit:		
Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	\$15,000.00	0.0
This Action:	\$0.00	0.0
New Total:	\$15,000.00	0.0

Specific Elements Perform PA activities in accordance with EPA OSWER Directive 9345.0-01A EPA OSWER Directive 9375.2-09FS and the NCP.

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Amendment C changes completion date to August 15, 2010 to allow for the Tribe to provide concurrence. There is no increase in cost/fee.

Amendment B changes completion date to May 30, 2010. There is no increase in cost/fee.

Amendment A changes completion date to April 30, 2010. There is no increase in cost/fee.

Conduct Preliminary Assessment of the Jackpile-Paguate Mine

The contractor shall develop a work plan/cost estimate for completing a Preliminary Assessment (PA) at the Jackpile Paguate Mine in Paguate, on Laguna Pueblo. Specific tasks in the work plan/cost estimate shall include:

1. Management/Cost Estimate;
2. File Review;
3. Site Reconnaissance;
4. Data Collection/PA Report

In addition to developing a work plan/cost estimate, the contractor shall conduct a review of all available regulatory files associated with the site. The purpose of the file review is to obtain information concerning site operations, waste types and quantities, regulatory history, past environmental violations, and citizen complaints.

A site reconnaissance shall be conducted for the site. The purpose of a site reconnaissance is to visually observe the site and its environs and to collect additional information to assist the PA evaluation. The recon shall be coordinated with the WAM and the WAM will accompany the contractor during all site recon activities. All contact with the Pueblo of Laguna shall be coordinated with the EPA WAM.

A PA report shall be developed for the site. The PA report shall be developed according to the EPA guidance for performing preliminary assessments (EPA540-G-91-013, Publication 9345.0-01A). A draft PA report for the site shall be submitted to EPA for review no later than February 1, 2010.

All activities shall be coordinated with the EPA WAM, Brenda Nixon Cook (214-665-7436). The START contractor shall contact Brenda Nixon Cook upon receipt of this TDD.

Accounting and Appropriation Information

SFO:										
Line	DCN	IFMS	Budget/ FY	Appropriation Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1										\$0.00

Funding Summary:		Funding
Previous:		\$15,000.00
This Action:		\$0.00
Total:		\$15,000.00

Funding Category
Removal

Section

Comments: Issued per email 5/27/2010 from SAM Brenda Cook

: Linda Carter

Date: 05/27/2010

Project Officer Section

Project Officer: Linda Carter

Date: 05/27/2010

Contracting Officer Section

Contracting Officer: Cora Stanley

Date: 06/01/2010

Contractor Section - Signed by Cecilia Shappee/start6/rfw-start/us on 06/03/2010 05:31:15 PM, accord

☒ No During the past three (3) calendar years has your company, or any of your employees
☐ Yes that will be working at this site, previously performed work at this site/facility?

Contractor Contact: Cecilia Shappee

Date: 06/03/2010